FINANCIAL INTERMEDIATION FOR THE POOR
SURVEY OF THE STATE OF THE ART

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GLOSSARY OF ACRONYMS AND ABBREVIATIONS

ACEP	Agence de Crédit pour l'Entreprise Privée (SSE financial institution, Senegal)
ADOPEM	La Asociación Dominicana para el Desarrollo de la Mujer (NGO, Dominican Republic)
ATM	automatic teller machine
BCEAO	Banque Centrale des Etats de l'Afrique de l'Ouest (Central Bank, West African CFA zone)
BKD	Badan Kredit Desa (financial institution, Indonesia)
BPR	Badan Perkreditan Rakyat (Indonesian bank regulatory classification)
BRI	Bank Rakyat Indonesia (State-owned bank, Indonesia)
BRK	Bankin Raya Karara (NGO program, Niger)
CAM	Centro de Apoyo a la Microempresa (FINCA affiliate, El Salvador)
CamCCUL	Cameroon Cooperative Credit Union League
CNCAS	Caisse Nationale de Crédit Agricole du Sénégal (Bank)
CUA	Credit Union Association (Ghana)
FINCA	Fundación Integral Campesina (NGO, Latin America and Africa)
FNB	First National Bank (South Africa)
FWWB	Friends of Women's World Banking (India)
IFAD	International Fund for Agricultural Development (FAO agency)
K-REP	Kenya Rural Enterprise Program (financial NGO)
KUPEDES	Kredit Umum PEDESaan (village credit program, BRI, Indonesia)
MSE	micro or small enterprise/micro and small enterprises
NBFI	non-bank financial institution
NGO	non-governmental organization
RFI	rural financial institution
ROSCA	rotating savings and credit association
SBGT	Swazi Business Growth Trust (financial SSE promotion group)
SDI	subsidy dependency index
SEWA	Self-Employed Women's Association (trade union, India)
SIMPEDES	SImpanan PEDEsaan (village savings program, BRI Indonesia)
SME	small or medium enterprise/small and medium enterprises
SSE	small-scale enterprises
TEBA	The Employment Bureau of Africa (South Africa)
USAID	United States Agency for International Development
WOCCU	World Council of Credit Unions
WWB	Women's World Banking

ABSTRACT

Poor people need financial services. Recent success stories in micro-finance have led to extensions and replications (some targeting the poor, others incidentally encompassing the poor), and a literature to record these innovations. This survey covers a worldwide literature review of the experience of financial intermediation for the poor, with emphasis on financial intermediation to two important groups who are often among the poorest of the poor: rural residents and women. It provides a starting point for research to be undertaken under EAGER/PSGE.

This survey analyzes 30 recent survey articles and several evaluations covering over 50 case studies (with some overlap) of financial institutions, NGOs, and policies in several areas: microenterprise, informal, and rural finance; savings mobilization; anti-poverty lending; access to credit for women; public policy and regulatory regimes; sustainability and outreach; successful institutional forms; and NGOs and associations. Despite the importance of economic growth strategies and macroeconomic stability, these have been analyzed extensively elsewhere and are not covered. The review continues with an analysis of (1) financial needs of the poor, (2) policies and regulations, (3) instruments of intermediation, (4) new technologies and (5) measurement and assessment of performance.

The poor and especially the ultra-poor need regular access to adequate food, followed by improved living standards, income generation and growth. From coping strategies to productive investment, the financial requirements in order of importance are (1) income generation and diversification of revenue sources, (2) savings (and dis-savings), (3) transfers, and (4) borrowing (the focus of credit programs but which increase debt at times of greatest adversity.)

Financial services for the poor pose problems of both policy and program design. Savings or loan sizes are small. The poor are likely to be illiterate, with little or no collateral, and averse to debt risk. Women and women-headed households dominate the rural- and ultra-poor, but face constraints from social and legal constrictions on access to resources and public activities, and their role as food producer, earner and mother. Some of the strongest financial organizations are women-only or women-led support organizations formed by women themselves. Women have repayment records better than men, and group guarantees work better than with men or mixed groups. Some legislation promoting equal access to financial institutions, intended to help women, has led to loss of control of women's institutions to men.

A review of ten examples of success (measured by recovery rates exceeding 95 percent, sustainable operations, and large and growing demand for services) in reaching the poor reveals both common features and diversity. Financial institutions moved “downmarket” to service the poor; some NGOs have become financial institutions; and new institutions have appeared to address this market. Successful techniques include the group guarantee techniques introduced by Grameen Bank and used by ACCION, FINCA and others, methods of legally charging high market-based interest rates despite restrictive usury laws in Indonesia and Niger, and voluntary savings schemes attracting tens of millions of rural residents in Indonesia.

Some successful lenders emulate the informal financial sector by knowing borrowers, sometimes *not* supervising loans, taking loans *to* the client, providing services appropriate to the client, charging commercial rates of interest, and being tough on defaulters. Rather than emulate, others penetrate by lending to clients which are successful "crossover firms" retailing funds within informal networks, while the lender retains traditional formal prudential ratios.

The two principal policy reforms are (1) establishing permissive banking acts legalizing deposit-taking "near-banks" but subjecting them to less onerous (and more participatory) regulatory, prudential, reporting and other requirements than major banks, and (2) reforming usury laws on the basis of consumer information laws rather than quantitative interest rate caps. However, these are rare: permissive banking laws have been limited to legalization of community banks or credit unions, and these by juridical status rather than by size or activity. *None* of the "success story" institutions has challenged usury laws. Many developed techniques to avoid these laws while paying lip service to them, which is wise given the symbolic importance of usury laws: current legislative challenges appear unlikely to succeed.

The survey investigates financial instruments provided by financial institutions for the poor:

- Payments mechanisms (including transfer facilities) which enlarge the coping capability of the ultra-poor, and which have included postal savings and transfer schemes and bank branches;
- Liquidity management which rivals the security and convenience of money-keepers (though field experience is constrained by the continued widespread use of forced savings schemes);
- Deposit facilities, reflecting the crucial fact that not all producers need loans, but most economic agents demand deposit or savings facilities all the time, and that deposits are the source of both sustainability and a market orientation ("getting prices right").
- Credit to the poor, free of distorting and perverse interest rate subsidies, but where evidence is mixed whether credit can be provided for the ultra-poor without an *institutional* subsidy.

While NGOs have an important place in addressing poverty, many are weakened by taking on financial services. NGOs are small-size, high-cost lenders, operating outside the formal financial system without supervision and regulations to protect depositors. Their own governance may be compromised by dependence on donors for funds which in turn raises borrower's expectations and lower willingness to repay. They lack incentive structures appropriate for market-oriented finance, and linkages with other, broader intermediaries. NGO programs are part of the mix of services needed but not the basis for a unique poverty strategy.

The paper analyzes new **technologies** which have proven effective in providing financial services to the poor. Emulation both of informal institutional arrangements for interaction with the client includes group lending both successful and unsuccessful, offering better loan terms as business relations build, voluntary deposit mobilization, and tools for reducing transactions costs. Innovations— many based on personal computers — now permit cost reduction on existing activities or the introduction of new products which address the needs of the poor.

The paper continues with a review of recent methods for measuring and assessing performance of subsidized credit plans, including Yaron's Subsidy Dependence Index and its limitation for measuring other dimensions of financial services such as the essential savings mobilization and transfer components. It concludes that a diversity of approaches is required to address diverse aspects and niches of finance to the poor. While the question remains unanswered whether the poorest of the poor can be served without subsidy, application of these techniques will permit more informed and transparent policy debate. The survey concludes with a recapitulation of lessons learned.

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Eric R. Nelson [ernelson@worldbank] has more than 30 years experience as a development economist, as a university professor and as an advisor to governments, central banks, development agencies and donors. He specializes in macroeconomics and the financial sector, particularly in the regulatory environment and its incentives on individuals and business. Dr. Nelson has extensive experience, including a decade of residence, working with local institutions in Southeast Asia and Sub-Saharan Africa where he has served as advisor and trainer in aspects of macro-policy reform. As senior economist at Development Alternatives, Inc. (DAI) since 1988, he has been an active participant in the EAGER/PSGE consortium's research and activities. Since June 1998 Dr. Nelson serves as World Bank country economist for Democratic Republic of the Congo.

INTRODUCTION AND OVERVIEW

Development of self-sustaining and widespread systems for financial intermediation is one of the greatest challenges for equitable development today. Not only do financial services facilitate the operation of the informal sector or micro-entrepreneurs, but they are critical to well-being of poor people in general, particularly those in rural areas far from the reach of formal financial institutions.

Recent success stories in micro-finance have led to a flurry of activity on financial services, some specifically targeting the poor, other encompassing the poor in its delivery and to a literature to record these innovations. Little of this research has focused on the African case or on transferring lessons from Asia or Latin America to the African setting. In the absence of region-specific information, policy makers in African governments and donor agencies develop programs based on hope rather than knowledge. Moreover, the field has been shifting from a focus on credit services to full financial intermediation, about which little is known for any region. This evolution requires new research into how to build cost-recovering full-service financial institutions that serve this market, how to design the appropriate regulatory regimes, and how to manage a much greater level of financial risk.

This survey reviews a worldwide literature on the experience of financial intermediation[1] for the poor, with emphasis on financial intermediation to two important groups of poor who are often among the poorest of the poor, particularly in Sahelian Africa: rural residents and women. When data permit, this survey also reviews recent techniques and policies applied in Africa. It is intended to serve as a starting point for Africa-specific research to be undertaken under the EAGER project.

There have been several surveys of innovative approaches in the financial field within the past two or three years; some of these—judging from the subsequent problems of 2 of the 11 "success stories" reported in Christen, Rhyne and Vogel (1994)—have been premature in their definition of the frontiers of finance. These surveys, from several viewpoints, overlap with each other and with the current survey. The contribution of this paper is to find innovations addressing the linkages between poverty and financial policies and programs.

Probably the most thoroughly studied field is that of **microenterprise finance**. Recent surveys of this subject include the work by Otero and Rhyne, editors (1994); an analysis of 13 success stories by Women's World Banking (*What Works*, 1994); and Christen, Rhyne and Vogel. Nine examples of successful **informal financial institutions** in four countries in Africa (Burkina Faso, Guinea, Mali and Senegal) have been reviewed by Webster and Fidler, editors (1995). **Deposit or savings mobilization** has been covered by Robinson (1991, 1992); Poyo, Gonzalez-Vega and Alguilera-Alfred (1994); Shipton (1992); and Gonzalez-Vega (1992), among many others.

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[1]One individual needs funds and another individual has idle funds. Rather than meeting and negotiating an exchange each is more likely to transact with a third party or parties. That third party is termed a financial intermediary and this third party's activity is termed financial intermediation. The intermediary may transform the funds in time (the loan and deposit have different maturities) or in space (geographically), but these are features of intermediation rather than its definition.

The subject of **rural financial services** has been surveyed recently by Patten and Rosengard (1991) for Indonesia, and most of the authors already mentioned. African experience has been explored in Webster and Fidler as well as Creevey *et al* (1995) which investigated financial services (informal and formal) used by successful agribusiness—including poor and women-headed survivalist agribusinesses—in Kenya, Niger, Senegal and Zambia. The Strauss Commission of inquiry into the provision of rural financial services (1996) in South Africa has recently completed an in-depth review of the state of the art in rural financial services—particularly in Asia—with its application to South Africa. This study, which includes not only review of the literature but also 36 commissioned papers and extensive expert testimony, forms a background for the current policy debate in that country. It goes, in much greater depth than this survey paper, into several national experiences. Cuevas and Benoit-Cattin (1993) cover financing rural development in West Africa.

Anti-poverty lending has been surveyed by Krahnen and Schmidt (1994), Bell and Gomez-Alfonso (1995), and Schrieder and Heidhues (1995). **Access to credit to poor women** in particular has been surveyed by Asche *et al* (1992) and by Morris and Meyer (1993); for Grameen Bank see Khandker, Khalily and Khan (1993) or Kodish (1992).

Public policy, regulatory regimes, and financial repression as it affects the operation and the success of special financial programs have been analyzed by Chavez and Gonzalez-Vega (1993a) and by Creevey *et al*.

The **sustainability and outreach** of financial institutions, including institutions in Africa (but concentrating on credit providers) has been analyzed by Yaron (1993) and by Gurgand, Pederson and Yaron (1994); Yaron's Subsidy Dependence Index has been adopted by analysts and even policy makers in several countries as an important tool. Interpretation of what makes a successful **institutional form** is an important component of designs of anti-poverty programs. Such analysis has been done by (among others) Chavez and Gonzalez-Vega (1993b) for several programs in Indonesia; Rhyne and Rotblatt (1993) for microenterprise finance institutions; Krahnen and Schmidt (1994); Robinson (1995); and Women's World Banking. Finally, issues pertaining to successful programs by **NGOs and village associations** have been investigated by authors who draw strongly differing conclusions, from Holt (1991) discussing village banking methodologies, Women's World Banking, and Christen (1992).

The dimensions and attributes of poverty itself must not be ignored. Several recent **poverty and living standards surveys** funded and published by the World Bank help to put the needs of the poor and policies for reducing poverty into perspective (World Bank 1995, analyzing Senegal, is a particularly good example). These studies help to measure the populations in absolute poverty, particularly the poorest of the poor. They help to distinguish the incidence and causes of poverty from the issues of inequality and of vulnerable groups under adjustment or policy change which are not addressed in this study.

These survey articles, as well as key evaluations and analyses of successful (and sometimes unsuccessful) programs, projects and policies in several countries (including Bangladesh, Bolivia, Ghana, Indonesia, Malaysia, and Morocco), form the key material for this review. This study is not a "meta-survey" of the existing studies. Instead, it analyzes reviews and analyses of specific institutions or policy changes, in view of identifying the new frontiers of finance that can be adapted to providing financial services to assist the poor in Africa. However, this study is limited by the orientation of the constituent surveys: most of the activities chosen for analysis by the surveys are credit programs.

Many of the innovations for semi-formal and formal financial institutions are successful adaptations of processes of the informal financial sector. The informal sector is recognized to reach the poor in an effective and sustainable manner but it does not promote financial intermediation to increase growth and many participants in the process consider it inadequate to meet the needs of the poor. Although, proven finance techniques in the informal financial system may not be fully transferrable to formal systems; the innovation has been their successful adaptation. Other innovations are original—computerization is one example—and often require experimentation and certain trial and error before their advantages can be identified and built upon.

FINANCIAL NEEDS OF THE POOR

The greatest need of the poor, beginning with the poorest of the poor, is regular access to adequate food. After food security, improved living standards, income generation and growth require the accumulation of productive assets, including "human capital" in the form of health, education and training. Access to food and then to other services is governed by income and by purchasing power, which includes the ability to shift income in time (from periods of income generation to periods of penury) and space (from migrants in urban areas or abroad to rural households) as part of a coping strategy. *In order of importance to the poor themselves*, the ability of a household to cope with food insecurity depends upon:

- income generation, which for marginalized households and individuals depends in turn upon diversification of revenue sources;
- savings and dis-savings from that income, whether in cash or in kind;
- transfers; and (as a last resort)
- borrowing.

The poorest of poor households, faced with a food crisis, may draw on diversified sources of revenue including transfers and dis-saving (including selling off assets). Increasing household debt is a revenue option, but one not taken lightly by a household confronted by adversity, even when donor programs have attempted to lighten the repayment terms for that debt. Indeed, one of the major lessons of the past is that credit programs have not addressed the needs of the poor, particularly the poorest of the poor. Improved financial intermediation involves providing instruments for stabilizing the household's consumption with the least damage to its wealth and income.

Constructive coping strategies including emigration, diversification of income sources, or pooling capital with others to start microenterprises. Destructive strategies include undertaking poorly paid off-farm labor out of desperation, charcoal production from gathered wood, skipping meals or less nutritious foods, cultivating marginal lands, emergency borrowing for non-productive purposes at high interest rates, prostitution, and sending children to beg rather than to school. Access to remittances may be key to raising the poorest households above the poverty line (World Bank, 1995). This financial framework is much broader than the concept of productive credit that led many donor activities in the past, and stressed income generation (and sometimes diversification) and borrowing, but ignored savings and transfers.

Poverty can be addressed on three main fronts. First and foremost, economic growth is the strongest and surest motor for improving living standards and reducing poverty; the positive examples of East Asia and the mixed examples of Latin America are unequivocal on this finding. Second, active participation of the poor in the process of growth must be assured through policies and programs. Third, the means to shift consumption over time or over space (including the acquisition of "lumpy" assets) is required for the poor to cope with their own periods of vulnerability. Financial markets play an important role in helping the poor in all of these areas. Access to appropriate financial services increases the coping and self-help abilities of the poor without making them dependent on public support.[2] Financial institutions also have an important role in facilitating the provision and maintenance of shelter, which is a more "lumpy" purchase than food. However, first the opportunities must exist: financial services cannot cause growth, but they are important in facilitating it. Financial services have the following functions (Gonzalez-Vega, 1994):

- Allowing transfer of purchasing power from uses with low marginal rates of return to those with high rates;
- Contributing to more efficient inter-temporal decisions about savings, asset accumulation, and investment;
- Permitting a less costly management of liquidity and accumulation of stores of value; and
- Helping individuals to manage economic risks.

The effectiveness of financial institutions in delivering services that meet these needs can be improved through:

- Facilitating intermediation between informal and formal financial institutions, to increase returns to the depositor and to society, to facilitate transfers, to improve liquidity, and to reduce risk;
- Increasing coverage of the poor and their specific financial needs;

[2] This is distinct from channeling public support through financial institutions which is discussed elsewhere in this study.

- Expanding access for disadvantaged groups, including women and the landless; and
- Enhancing the outreach and sustainability of financial institutions.

The most powerful tool for poverty reduction, economic growth, is well discussed elsewhere and is not treated in this paper, except indirectly through the first strategy of financial intermediation, as it contributes to growth.[3] Traditional production lending only met the second of these strategies. The new innovations are meeting all four, in many cases according to the relative priorities accorded these by the poor themselves.

SUCCESSFUL FINANCIAL INTERMEDIARIES

Financial services for the poor pose problems of both policy and program design. Loan sizes or savings accounts are small, and installments are often much smaller still. This raises transactions cost per unit of currency. In comparison with the general population, the poor are illiterate and/or innumerate, requiring simplified applications that complicate record keeping which may be inappropriate due to extensive co-mingling of funds for household and productive purposes. In many cultures women (who are heavily represented among the poorest of the poor) cannot have financial accounts in their own names. The poor have little or no collateral to offer, and, given their vulnerable position, often are averse to taking on the risks intrinsic in credit which to them is additional debt.

Reviews of the microenterprise literature reveal several approaches which have been successful in reaching the poor as well as the microenterprise clientele. A few are briefly summarized here to demonstrate their common features as well as their diversity; the reader is referred to one of the excellent survey articles on microfinance for several other approaches.[4] Some are financial institutions which have developed successful techniques for moving "downmarket" to service the poor, others are NGOs which have become financial institutions, while a third set are new institutions founded specifically to address this market. Although some critics with high standards of impact may argue about what constitutes success, all the approaches reviewed are "successful" in terms of having repayment rates exceeding 95 percent, sustainable operations, and large and growing demands for their services.

Grameen Bank is undoubtedly the best known worldwide. A specialized credit institution with its

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[3]This is not to belittle its importance, but to focus this survey paper on aspects of assistance to the poor which are not covered by the more macro-oriented growth studies.

[4]Programs identified as leaders in other surveys but not described here include ADOPEM (Dominican Republic), BancoSol (Bolivia), BRK (Niger), and CorpoSol (Colombia) in Christen, Rhyne and Vogel; NAFIN/PROMYP (Mexico), CFN/FOPINAR (Ecuador), SEWA Bank (India), Bancosol, ACCION (Latin America), FWWB (India), ADOPEM (Dominican Republic), the WOCCU credit union movement (worldwide), and CUA (Ghana) in *What Works*; and a variety of institutions analyzed in Otero and Rhyne. Many of these do not address the needs of the poor.

own charter, it provides credit without collateral to the rural poor; 96 percent of its borrowers were from this group. It follows a minimalist lending approach complemented in subsequent rounds of credit by other services and skills development. Some argue that the linking of these social services has been effective in both poverty alleviation and in challenging traditional structures of power and inequality. Grameen lends through peer groups which jointly guarantee repayment. Loan size varies from $1.43 to a ceiling of $200-250, with an average of $158; the annual effective rate is 20 percent. As of 1991, Grameen had 1.1 million members, 92 percent of whom were women. Recently the bank has established a program targeting the rural destitute, working through local traders as intermediaries. Out of 1,000 branches, 500 are breaking even. Grameen has received loans and grants from a variety of donors, providing an important institutional subsidy,[5] but since 1993 it has operated in the national money market for incremental loan funds (*What Works*, Christen *et al*).

Indonesia (Rosengard and Patten, *What Works*, Christen *et al*, Strauss) has several examples, with a sequencing that has implications for practitioners elsewhere. A large number of village-owned banks (BKD) established during the colonial period became bankrupted by high inflation in the 1960s; many have been rehabilitated with donor support and training. Most importantly, the banks were exempted due to their historical development from the supervisory role of the Central Bank and thereby from the restrictions of the banking and usury laws. More than 5,300 such banks are in operation particularly in Java and Madura, supporting over a million borrowers. The basic lending system is a twelve week loan with weekly repayments each equal to 10 percent of the amount borrowed, an annual effective rate of 55 percent.

In 1970/1971 Bank Rakyat Indonesia, a state-owned bank, set up a Unit Desa (village) system to support rice modernization by providing production credit (BIMAS) to rice farmers at 12 percent per annum, financed by a Central Bank credit at 3 percent. Over 3,600 Units were established, including many in urban and peri-urban areas, but were kept distinct from the branch network of BRI itself. The Units also administered a small, fairly restricted, savings program paying 12-15 percent, and beginning in 1974 an additional credit program, Kredit Mini, at an interest rate of 12 percent (less than the rate to savers) subsidized by Central Bank funds.

Financial sector reform in 1983 made this system—which by now was facing immense default rates on its credit programs—untenable. The Ministry of Finance decided to commercialize the Unit Desa system rather than liquidate it. To do so sustainably would require an interest rate exceeding 30 percent, not an easy political decision but one made easier by the success of the BKD and their popularity with the borrowers despite an interest rate nearly twice as great. Given the limitations of the usury law which capped interest rates at 18 percent per annum, the KUPEDES credit program established for the Unit Desa system established its interest rate at 1.5 percent per month flat rate on

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[5] An *interest rate subsidy* directly reduces the interest rate paid by a borrower or (equivalently) increases the earnings to a lender at a given interest rate. An *institutional subsidy* provides a source of income unrelated to lending or deposit activity and so does not cause price distortions, but permits the institution to cross-subsidize all its lending, or alternatively to sustain higher overhead costs than competing institutions and thus offer more expensive services.

the original balance,[6] with any late installment payment charged an additional 0.5 percent per month penalty. By the end of 1995 the portfolio of loans outstanding totaled Rp 2.5 trillion ($1.1 billion) to more than 2 million borrowers, with a collection rate exceeding 97 percent. Minimum KUPEDES loan size is $12, the maximum $11,850 and the average $720. About a quarter of the borrowers are women.

Studies in rural Indonesia indicated a strong unmet demand for liquid financial savings instruments (Robinson, 1992). In 1986 BRI introduced a savings plan, SIMPEDES, which paid 12 percent interest and permitted unlimited withdrawals. BRI introduced a transfer price of 15 percent for funds bought from or sold to treasury by the Unit Desa (a system which was not used between treasury and the regular branches of the bank), and built incentive schemes for staff based on the profitability of products compared to this reference rate. Administration was thereby decentralized and considerable operational and lending authority devolved to the Units.

Additional savings instruments have since been introduced to suit the needs of different classes of saver. The number of savers grew to 6.5 times, the number of borrowers and the volume of savings to twice the volume of loans. The increase in savings also improved loan repayment rates by giving rural people a cash cushion. However, there is no evidence that loans, and even the savings vehicles, are reaching the poorest of the poor, particularly since all loans require collateral. Where it has targeted the poor, it has done so through existing patron-client relations, using these as financial intermediaries. While KUPEDES/SIMPEDES continues to be run by a state-owned bank, it is highly profitable, its return on assets exceeds that of the bank as a whole, and it is not subsidized in any way.

The Indonesian story continues with policy reform. Several deregulation packages in the late 1980s specifically authorized a new class of village bank, called a people's credit bank (BPR), with less strict supervisory requirement than those facing commercial banks. This resulted in the mushrooming of new banks (many of them in rural areas), the abolition of most of the subsidized credit lines of the central bank, market interest rates, and other liberalization reforms. Today, Indonesia has one of the best functioning (rural) financial markets of the developing countries. There are about 14,000 small rural financial institutions serving clients with micro-finance services (loans as small as $50, daily savings collections, and other services) without subsidies. German assistance has focussed on assistance to these BPR and rural outlets of commercial banks, to promote financial services to micro-entrepreneurs through a group approach. Since in many regions the BPR face tough competition from commercial banks in other market segments, they are eager for appropriate tools to downsize their services to micro-entrepreneurs, or to improve their already existing services, using the group approach.

The characteristics of informal financial services have been successfully emulated by ACCION International. ACCION's successful microcredit technology based on lessons learned from informal lenders has been developed through its own experience and through evaluation of the projects of

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[6]This translates to an effective annual interest rate of 31.7 percent without compounding or 36.7 percent compounded; experts continue to debate whether compounding is a meaningful measure for short-term loans, but either measure is significantly greater than the 18 percent usury rate.

others (Christen, 1992). ACCION began (originally in Brazil but expanding into 14 countries in Latin America) as an NGO offering technical assistance to microbusiness support programs; its experience, its adaptation of its programs to fit the needs of the poorest businesses, and its history of upgrading from technical assistance to finance can be applied equally to general poverty programs.

ACCION's financial assistance model began as a classic credit model, but has evolved based on the way informal markets work to reach the poorest businesses. It has a high recover rate (99.5 percent), and operational self-sufficiency. It has begun to move some of its affiliates (PRODEM in Bolivia, ADEMI in Dominican Republic, ADMIC in Mexico, among others) from small, expensive NGO activities to commercial banking as banks or as advisors to other financial institutions.

Christen identifies six major lessons of informal finance which are applied by ACCION and which are presented here because of their applicability to other programs:

1. Get to know your borrowers. Informal financial transactions are secondary activity within a working commercial or personal relationship. ACCION replicates this with small loans of short maturity and expands them as it develops a credit history with the borrower and according to the needs of the expanding business. It also uses expulsion from the program for delinquent borrowers and Grameen-style group lending to solidarity groups which know the borrower better than ACCION. This methodology works well where business owners know each other through daily contact, but less well where they do not. Christen argues that these group guarantees work better than single guarantors of loans.

2. Do not supervise loans. Loan supervision expends valuable resources and often (because of the fungibility of money) serves no effective purpose. Proposed use of funds should affect only the original risk calculation and the decision to make subsequent loans to that borrower. Low-cost knowledge of the firm's activities should come through other sources, in the way that moneylenders get information as supplier, client or patron to the borrower. ACCION emulates this relation with technical and management assistance and with special services such as insurance or lobbying associations. Participants pay the full cost of this service, which may be more profitable than credit.

3. Take loans to the client, in conjunction with other activities, to reduce transactions costs (in money and in time, and for both loan approval and administration).

4. Provide appropriate credit, particularly regarding timeliness: immediate credit for commerce or for factoring, rapid turnaround for loans. This allows the poor to take advantage of unexpected opportunities with (short-term) returns which greatly exceed the high nominal interest rates required to make this service possible. ACCION attempts to make its loans very small, short-term, working capital loans with frequent amortization payments, which are renewable to become an “evergreen” term finance.

5. Charge commercial rates of interest. Informal lenders who use their own funds are giving up alternative uses of their money in the same very short term which may have an (annualized, which is almost never the case) opportunity cost of 200 to 2,000 percent; businesses which willingly pay moneylenders' rates are willing and capable of paying the full commercial rate or slightly higher. ACCION was a pioneer in charging rates which permit sustainability in its Latin American programs.

6. Be tough on defaulters. This replicates the Grameen experience and that of informal lenders who (contrary to some images) seldom use criminal means to enforce payment, relying instead on breaking commercial relations, spreading the word about a bad borrower, and applying informal pressure. The breaking of future credit is the most important tool if it affects the entire solidarity group, some members of which presumably will want to continue future credit.

ACCION's program is limited in that it addresses the credit needs of the businesses of the poor, together with complementary technical assistance to business. Its credit-only approach imposes an initial capital requirement which must be met by the parent organization, by governments, or by donors. Other programs offer other financial services and other means of achieving sustainability; the six principles given here, however, have become widespread.

FINCA is an NGO network of 11 national affiliates in Latin American countries and in Africa, and is one of the earliest programs using the village banking methodology which it developed. **Village banks** are community-managed credit and savings associations with 30-50 members. The village bank receives loan capital from FINCA's affiliate and an elected (female) credit committee on-lends it to its members. The methodology is standardized and limits the size of loan and amount of (forced) savings. Loans vary from $50 to $350 with an average of $100; there are approximately 135,000 loans outstanding. Interest rates are around 32 percent. Most FINCA programs address women's needs, as befits this NGO's charter, and credit is only one element of an empowerment program for the members. Almost 100 percent of the borrowers are women in poverty who are entrepreneurs and producers (except for its Costa Rica program which serves both men and women, makes larger loans, and targets agriculture). Repayment rates are 97 percent.

In 1994, FINCA's program in El Salvador faced the problem of internal fraud within the Centro de Apoyo a la Microempresa (CAM), one of its two NGO partners, costing $118,000. As with other organizations, there remain problems associated with rapid growth in portfolios. FINCA is rebuilding its program, and is stronger for the experience. CAM continues to operate the largest microcredit program in Central America.

The Kenyan NGO K-REP works in both rural and urban zones. It adopted its current methodology in 1990. K-REP assists five NGOs in strengthening their institutional capacity to aid rural enterprises, and operates two credit schemes: a “wholesale” loan scheme to local ROSCAs (“Chikola”) and a minimalist group-lending program (“Juhudi”) with a forced savings component beginning 8 weeks before access to credit. Loan sizes are $85 to $847 under the Juhudi scheme with an average of $250; the average Chikola wholesale loan is $16,950. Juhudi lending regulations are standardized, with a fixed maximum on the first loan and increasing ceilings for subsequent credits; the effective interest rate is 38 percent and the repayment rate is 95 percent; repayments are weekly during group meetings. K-REP has had problems responding to recent inflation, so despite its efficient service delivery it has an inflation-adjusted return on assets of -18.5 percent and the institution is threatened. It is unable to charge positive real rates since competing government programs make loans at considerably lower interest rates.

ACEP in Senegal is not a financial institution addressing the needs of the poor. Its collateral and reporting requirements make it one of the most rigorous of small credit programs. It has been highly successful, growing in 8 years from a one-window operation in a provincial town to a national program with a large urban presence, and graduating from donor funding by USAID to take advantage of new credit union legislation permitting it to begin deposit mobilization in the early 1990s. It is mentioned here because it has established a credit wholesaling facility. Some of its high quality clients are "crossover" enterprises with extensive connections to the informal financial sector. ACEP lends to these clients in the expectation that these funds will be relent as productive credit. The effective annual interest rate is 20 percent, though recent interpretation of a 1995 credit union legislation is imposing a ceiling which is currently 15 percent, the same as for banks, and causing it some financial difficulties.

The USAID-supported Swazi Business Growth Trust (SBGT) pioneered "smart" card ("smartcard") transaction systems in microenterprise and small enterprise (MSE) applications in 1993. This technology permitted SBGT to establish a registered bank, which would normally be prohibitively expensive under Swazi banking laws and would extend its activities to areas far outside its core competence. With this technology, over the past three years SBGT has become one of the most effective organizations in providing MSE working capital, agribusiness, construction and franchise lending in Southern Africa. SBGT addresses small business rather than the poor, but its transactions technology is easily transferred to programs assisting the poor and is reviewed here in that light.

SBGT requires neither the expensive headquarters nor the branch network of a commercial bank, but works through a combination of branches of existing banks and merchant outlets convenient to a client base that could not be served by traditional means. Smartcard technology can be tailored to a wholly-merchant-outlet environment, introducing the possibilities for new revenue sources for financial institutions while providing a convenient and secure system for client transactions at those selected outlets. Although the system has not been extended to taking and releasing deposits, this would be a simple addition through the cash management of participating merchants: The SBGT system already supports multiple debit and credit purses on a single smartcard.

The pilot smartcard transaction system is cost-effective for lending to small enterprises and the poor because loan disbursement and loan collection are handled where not only is there no on-line computer system, but no telephone or even full-time electrical service.[7] Clients require neither an account with merchants (including suppliers) nor a commercial banking account, as the card holds in memory all the information necessary to carry out a transaction any time and at any point-of-sale terminal (a terminal costs $1,000 but a new generation costs $500; for each transaction it produces a three part receipt and both an electronic and printed audit trail).

[7]Electrical service is required only to recharge the batteries on the smartcard terminals, so these can function in villages with only a few hours per day of electricity. At the other extreme, terminals can be equipped with modems capable of down-loading batch settlements to the bank's accounting systems.

SBGT links its transaction system to a commercial bank accounting system, the FAO-developed program Microbanker, to perform the banking functions including reporting requirements for the regulatory authorities that are a nuisance for the business-service-oriented SBGT staff but are required of SBGT as a bank. Smartcard transactions technology is new and still evolving; other uses are discussed in this report while other will be developed over time.

THE POLICY AND REGULATORY ENVIRONMENT

As already mentioned, this article does not discuss the most important engine of poverty reduction, a macroeconomic environment which encourages growth and the fiscal and monetary policies required to obtain this environment. Nor does it discuss the fiscal and particularly monetary regime which leads to monetary stability and makes serious financial intermediation possible. The evidence clearly shows that sustainable financial intermediation for productive purposes is difficult or impossible in regimes of high and unstable inflation. Policies to combat poverty through financial intermediation must begin with the government getting its own house in order. This section discusses experience with laws and regulations more specifically limited to the financial sector and to the legal status of non-bank financial institutions and its implications for financial services to the poor, and the integration of informal and semi-formal financial institutions into the financial system.

Regulation of Financial Institutions

Financial regulation in most countries has been designed to first-world standards, stressing depositor protection in large financial institutions and preventing systemic crisis. This approach applied to developing countries has made most informal or near-informal institutions illegal although sometimes tolerated. Such “toleration” has permitted the development of some successful programs, though the general case has been that successful institutions cannot become sustainable or grow because of the probability that increased scale will invoke the wrath of regulatory authorities. The major regulatory constraints to financial intermediation for the poor are:

- Banking acts, capital requirements, reserve ratios, and treatment of non-banks;
- Usury laws, Islamic strictures and interest rates;
- Ownership and company laws; and
- Branching and other regulations affecting cost of service delivery.

Barriers to entry to the legal financial sector have been reduced in several countries with a significant impact on the provision of services to the poor. NGOs and credit union movements have been constrained in several countries because banking laws, by failing to recognize them, have made their operations illegal: as both deposit-takers and loan-makers they were performing banking functions but not registered (or regulated) as banks. The same barrier faces informal institutions, which are often tolerated as a necessary evil (as usurers) by the authorities and only prosecuted if they become successful and large enough to become visible. Traditional banking acts are designed for protection of depositors and for banks with large portfolios of large loans; they impose impossible standards for smaller institutions or for banks with portfolios of small or informal-type loans.

Most banking acts require a high level of capital to protect depositors against moral hazard by putting the owner's capital at risk, and to provide a buffer for high startup costs. This is less appropriate in rural and peri-urban areas, with financial institutions scaled to the poor. Some countries such as the Philippines and Indonesia have introduced a class of people's, village, or community bank with lower capitalization and reserve requirements than those required for financial institutions offering a full range of services including foreign exchange. This has drawn local entrepreneurs into the provision of semi-formal financial services, taking advantage of their specialized local knowledge and (in many cases) drawing them from the informal financial sector into a system capable of intermediation with the formal system.

Uruguay has encouraged banks to maintain a certain percentage of their loan portfolio in loans to small enterprises; these loans are judged by simple criteria such as currentness and number of timely repayments rather than by stricter (and more expensive to monitor) standards of portfolio performance applied to large loans. Bolivia has established a similar condition in its banking legislation for loans under $5,000.

Despite a desire by some—particularly donors— for a transparent legal and regulatory process, most successful microfinance programs have been able to avoid constraining government policies such as interest rate ceilings or usury laws, directed lending, and reserve requirements by exploiting the absence of a clear regulatory framework for their operations. In some cases (KUPEDES) this has been by deliberate "smoke and mirrors" which fools no one but permits the institution to charge a viable interest rate. Some countries, like South Africa, have exempted Credit Unions and *stokvels* (ROSCAs) belonging to the appropriate accrediting and supervisory body from banking legislation; others continue to work in a legal grey area. Several credit unions have avoided the problem by establishing a series of fixed products with a fixed fee. The effective interest rate that may be well in excess of usury rates is stated as a fee and is not adjusted if there is early or late payment of the loan. This has additional advantages for intermediaries functioning within Muslim strictures on charging interest in Islamic countries.

In the West African Economic and Monetary Union, recent steps by BCEAO, the common central bank, to legalize credit unions and programs by donors and NGOs include 1994 draft legislation for credit unions which is already law in several states. This legislation provides for regulation of organizations that are neither formal financial institutions (regulated according to the Banking Law) nor credit unions:

> Article 6: To engage in savings and credit activities, the structures or organizations described in Article 5 [which excludes organizations which are neither mutual nor cooperative in governance from the designation of credit union] are regulated:
>
> 1. By the provisions of the law on banking regulation; or
> 2. By specific provisions as agreed with the Minister [of Finance].

The credit union model legislation permits donor experiments in the region to build on their experience and strengths. It addresses the wall isolating the formal financial sector only for organizations declared (but not necessarily functioning) as cooperatives or mutual organizations. That is, it does not regulate or even acknowledge other institutions serving similar functions. The result was for several institutions to modify their by-laws to qualify—however absurdly—as cooperatives. The regulations are based on a typology of institutions rather than on function, which would have provided regulation according to financial powers and limitations.

The promise of this law is the open-ended clause of Article 6, which permits regulation at the national level of *other* financial institutions not covered under the banking law. This provides an important, but still untried, instrument to develop a regulatory environment that supports intermediate semiformal and informal financial institutions.

In Senegal, this law abolished a temporary decree which has permitted credit unions to charge an interest rate higher (24 percent at that time, 1994) than permitted for banks (twice the rediscount rate, or 18 percent in 1994, 21 percent in 1993, and 15 percent in 1996) under the usury conditions of the bank act. While this figure was no less arbitrary than the usury figure, it was six percentage points higher and encouraged several semi-formal institutions to register as credit unions. The credit union act, however, is moot on interest rate policy and as a result credit unions and other semi-formal institutions have been required to reduce their interest rates to the maximum rate charged by banks. (Creevey *et al*, Webster and Fidler). The lack of mention in the credit union law also means that credit unions are subject to the existing labor laws which limit their ability to match the hours of their clients. Organizations that were anxious to register under the credit union law are now having second thoughts as the government is compelling them to undermine their own operating and financial self-sufficiency. Benefits of complying with the law are exemption from taxes, copyright protection for the institution's name, and a legal right to operate. Alternatives are to apply for an exemption (which is likely to be refused) or to operate illegally.

Usury Laws and Interest Rate Caps

Several groups argue for the replacement of prescriptive usury laws with laws based on transparency and consumer information ("truth in lending"). Prescriptive laws are based on specific interest rates or ranges, possibly coupled with exemptions or different rate ceilings for certain legal classes of organizations (such as cooperative credit unions) or members of specific self-regulatory associations. These laws are favored by populist politicians, village groups and NGOs who consider that high interest rates exploit the poor; of these, it is not clear who is aware of the objectives, practices and finances of microfinance institutions and their acceptance by the clientele, or whether this awareness translates into understanding or support.

In contrast to this approach, an informational law would permit borrowers to choose between providers of financial services in an otherwise-free market. However, there has been little success in replacing the prescriptive laws with market-based ones, despite the public debate in several countries. More remarkable, none of the successful credit programs have attempted this change.

The clearest example of this is Indonesia, where the series of programs described earlier have openly violated the usury laws with their "reinterpretation" of local practice and a tacit understanding that a flat rate could be charged on the original balance of a declining balance loan, doubling the effective rate. Another example is credit unions in Niger, which designed a time-limited product with fixed fees instead of interest. Although the intrinsic annualized interest rate for this product far exceeds the usury rate, this design neatly avoids usury ceilings and Islamic strictures on the charging of interest.

The experience of donor projects and informal institutions in Senegal after their tortuous and procrustean choice of conversion into credit unions suggests that organizations which have paid too much attention to the usury laws have trapped themselves within an argument form from which there appears to be no escape in populist democratic governments. Christen reflects that the pressure for such interest rate caps generally comes from well-meaning advocates for the poor within the NGO itself as well as from politicians within and without the organization; it never comes from the clientele.

Regulation of Informal Financial Intermediaries

Regulation of semi-formal and informal institutions generally has required capitalization and prudential ratios based on statutory classification of the intermediary. This has proven unwieldy and often unworkable, as the central authorities (banking boards or central banks) are incapable of supervising small scattered units. Most countries classify any organization both taking deposits and making loans, or sometimes simply taking deposits, as a bank, and apply prudential regulations designed to reduce depositor risk in first-world banking institutions. Exceptions are also defined by statute—credit unions as a class, or members of specific organizations, regardless of the capability of the central authorities to monitor such an institution or of the desirability of delegating that supervision to depositors or other local authorities.[8]

ROSCAs are internally monitored. "Depositors" assume the full risk for their deposits, and supervise their use closely. This is both a strength and a weakness of informal institutions as financial intermediaries, in that it is difficult for such an organization to intermediate in space (out of sight of the depositors). Successful activities which engaged in deposit mobilization to become sustainable rely on internal monitoring.

Indonesia, due to the history of its local financial institutions, is able to develop local monitoring independent of the Central Bank. The BKD are supervised by regional development banks; BRI Unit Desa are monitored by BRI branch offices. Neither are monitored by the central authorities. The Banking Law has simplified reporting requirements for the 12,000 BPR, though in fact this has been undermined by the Central Bank's insistence that these banks must be individually authorized to operate rather than having a blanket authorization as the law appears to state.

Several countries' credit union legislation provides blanket exemption from supervision by central authorities for associations duly registered as credit unions. This exemption has led to some

[8]In South Africa, membership in the Credit Union Association or in the Association of Stokvels, as appropriate authorizes institutions to exempt transactions under a certain ceiling from the conditions of the usury law.

contortions as informal financial institutions have changed their formal governance rules (but probably not their actual operations) to qualify as mutual organizations or cooperative credit unions. In very few cases has it clarified the regulatory role which devolves upon depositors or professional associations. The authority given by West African Economic and Monetary Union to Ministers of Finance to bring other organizations under the credit union legislation can be interpreted permissively ("all activities not formally proscribed are permitted") but in its application to date appears to be used only as an escape clause to permit donor-funded semi-formal or informal activities to function on a case by case basis while continuing to suppress indigenous and spontaneous activities.

Monitoring and supervision according to the scale and sophistication of the activities undertaken, whether the institution is for-profit, non-profit or informal, may be preferable but has not been practiced in many of the countries which are home to the "best practices." The false impression that the government is monitoring village-level institutions may undermine these institutions by reducing the incentives of depositors to undertake internal monitoring. Indonesia is a notable exception to this juridical classification: after new banking law in the late 1980s authorized a class of "People's Banking Bodies" (BPR), the share of the state owned banks fell sharply due to an explosion in private local financial institutions. Today, Indonesia has one of the best functioning (rural) financial markets of developing countries. There are about 14,000 small rural financial institutions serving clients with micro-finance services (including loans as small as US$ 50 and daily savings collections, among other features) without subsidies.

INSTRUMENTS OF FINANCIAL INTERMEDIATION

The financial system permits a larger and more integrated market for goods and services, factors of production, and assets. Financial intermediation channels resources from producers, activities and regions with a limited growth potential to those where a more rapid expansion of output is possible. For the poor, the highest-return use often includes consumption.

Financial services are considerably more than credit. They include, *inter alia:*

- Facilitating payments
- Liquidity management
- Intermediation of funds from deficit to surplus economic agents, and from lower-yielding to higher-yielding uses: deposit-taking, savings mobilization and equity building, and credit; and
- Dealing with risk: transformation, sharing, pooling and diversification.

Past attempts to reach the poor through financial market interventions have sought to promote particular activities, compensate producers for other repressive policies, free the poor from the grip of moneylenders, or redistribute income toward the poor. These measures have largely been unsuccessful, have undermined the financial institutions themselves, and have interfered with the evolution or creation of appropriate institutions to help the poor. This section looks at some more recent measures to use financial intermediation to alleviate poverty.

Payments mechanisms

Payments mechanisms consist of transfer facilities for funds and all mechanisms for obtaining access to financial deposits or transferring funds to third parties (cheques, money orders, or garbage sacks full of banknotes are all payments mechanisms.)

A living standards survey of Senegal made the counter-intuitive finding that poverty was less widespread in the most arid regions of the country than in richer agricultural areas (World Bank, 1995), and discovered that the diversity of economic activity and the extensive system of transfers from urban areas and even abroad to the residents of the zone provided a coping mechanism which was absent in the agriculturally richer area. Transfers are an important coping mechanism for the poor, and their absence is often one of the attributes of the poorest of the poor.

Until recently, postal savings systems were a widespread instrument for both savings and transfers. They were located in every town and many villages throughout Africa. In South Africa with its history of long-distance migrations for work, the system is well established and still widespread, though it is being overtaken by the commercial bank network's deposit-taking branches. In Sri Lanka the system has failed due to difficulties posed in withdrawing funds, due to low returns on savings, and competition from other savings services.

In most of West Africa the network has collapsed due to its weak point: rather than serving as an intermediary, the postal system maintains its funds in government debt obligations or in the working capital of the postal service itself. When the government was unable to pay its debts, these systems lost their credibility with users. Still, the national systems are still present and can potentially serve an important role for transfers and deposit mobilization. However, the investment policies of the post office means that the funds mobilized will seldom be moved to more productive uses, thus postal savings programs are only half of the mix in promoting economic growth through intermediation.

In South Africa, The Employment Bureau of Africa (TEBA) was the primary recruiter of labor for the mines. Its affiliate TEBA Cash now provides an important payments system for mine workers. This network is an important alternative to the postal network, with 103 branches in major mines and 69 offices in rural areas. This system accounts for 70 percent of TEBA's activities, so it has become a financial intermediary. However, this model cannot be replicated with ease elsewhere.

Also in South Africa, the commercial banking network has branches down to most towns and larger villages; with the growth in transportation services since the end of apartheid most people are a short bush-taxi ride from a bank branch. These branches are important sources of deposit taking and transfers, including for the poor. The expansion of ATM technology in urban areas and in some rural areas has led to the development of new services to all users including the poor (transfer services in particular) and to considerably reducing costs of existing services such as lending. This situation is distinctly different from West and Central Africa where a half century of financial repression has led to a highly centralized, urban banking network.

Informal transfer procedures are important particularly where bank branching is not found. Individuals will carry cash large distances for purposes of trade, and elaborate social systems based on village associations have been developed to transfer cash with travelers. This system remains the most risky.

Transfers are one of the most important coping mechanisms for the poor. Local institutions which emulate the informal sector have not developed a capacity to do this well, and only integration of these institutions with the banking system or with the postal savings or giro system will provide the kind of national network which meets the needs of the poor. Branch banking in some countries has provided important services in this regard, but in others where it is available the evidence is that it has not been used (Creevey *et al*).

Liquidity Management

Liquidity management—having sufficient cash for varying transactions needs but not so much as to lose possible returns to investment or to risk loss — is a serious problem for the poor, judging from the evidence on the role of money-keepers (Creevey *et al*, Lewis), none of whom pay interest and some of whom charge a fee (such as one day's deposit out of thirty, or 3.3 percent a month) for this service. This fee appears to be a price willingly paid for forced savings rather than face the difficulty and spreads between buying and selling price involved with the sale of real assets to finance consumption in periods of penury (especially in rural agriculture where potential buyers of assets are presumably also under the same stress, depressing prices). Other informal activities to develop a relationship that can be drawn upon in periods of want are shown in the voluntary deposit-placing by traders of funds with financially strong commerce (Creevey *et al*). Studies in rural Indonesia suggested that this was an important but missing service (Robinson, 1992) in rural areas. This hypothesis was confirmed in Indonesia by the introduction of the BRI/SIMPEDES and related flexible voluntary savings instruments.

There is too little experience elsewhere to confirm or refute this hypothesis, since forced savings[9] remain the norm at most credit unions and small saver programs. FINCA personnel in Uganda (personal communication) believe that voluntary savings would be inadequate to fund their current lending program. It is unclear how much of the demand for credit at institutions with a forced savings component is actually a demand for flexible access to funds, with forced deposits an acceptable price to pay for access when required. The provision for purposes of liquidity management of voluntary

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[9]Forced savings schemes take a variety of forms, but all require regular payments into a savings account which cannot be drawn upon by the saver. Some schemes require a period of contribution before the depositor is eligible to receive credit, others restrict the total amount of credit to the total forced savings of the depositor and co-guarantors in a group scheme, and still others use the compulsory contributions to finance group or village self-help projects. In whatever form, there is extensive evidence that the deposit is perceived not as savings or equity building but as a component of the cost of credit, so these activities cannot be considered savings mobilization schemes. Some programs which feature a forced savings component also offer voluntary deposit services.

deposit mechanisms and a variety of savings instruments with varying access is a subject requiring further research.

Intermediation of Funds

Setting aside the macroeconomic implications of intermediation in improving the marginal productivity of capital and thereby increasing the rate of growth, the instruments of interest to the poor (and to most others) are deposit-taking, savings mobilization and equity building, and credit. Savings mobilization and lending are key for creating a sustainable organization.

Deposit and savings mobilization

Deposit facilities provide valuable services for liquidity management and the accumulation of stores of value by poor households and firms. Researchers show intense demand for deposit facilities in the rural areas of very poor countries; satisfying this demand has been a distinctive feature of programs which have successfully delivered financial services to the poor (Robinson, p. 48). Not all producers demand loans. Those who do, do not need credit all the time. However, most economic agents demand deposit or savings facilities, all the time.[10]

Deposit mobilization when it has been made voluntary has been a sought-after service by the poor and others. Reasons for savings include cost of funds, autonomy in investment and consumption decisions, equity-building for planned fixed investments or to develop the working capital cushion necessary to avoid the risks resulting from over-leverage when assuming debt with a fixed repayment schedule in an unstable economic environment. Those who support it understand it also imposes a market orientation on management of financial programs. The scale requirements of some investments and the high returns to industrialization in capital-scarce countries suggest that improved savings services and more efficient intermediation will have both a higher return to society and a higher return to the deposit-making rural poor than will local intermediation through a ROSCA, a village bank, or a donor project providing funds for rural investments only. These returns are difficult to identify at the level of the individual village or the individual investment, however.

Our knowledge on deposit mobilization in practice is still primitive. This is partly because programs with forced savings components are still widespread. Reinforcing that effect, many of the survey articles of financial services continue to be survey articles of credit programs.[11] Still, there is

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[10]Dale Adams refers to credit programs as "left-handed finance", based on the statistic which comes from financial programs worldwide that, when institutions offer non-coercive deposit services, the ratio of (numbers of) borrowers to depositors is approximately one in seven, similar to the proportion of left-handed people in the general population. This 7:1 ratio is remarkably consistent, and of course implies that the average deposit in a stable institution will be only one seventh the size of the average credit which itself may be quite small.

[11]Some of this reflects the continued belief that successful credit delivery is the same as successful provision of services to poor or rural inhabitants, supported by the experience of some programs that voluntary savings are insufficient to support the low-interest credit programs of the NGO.

considerable evidence in the literature (and in discussion on Internet bulletin boards) concerning the informal sector money keeper, who holds funds without paying interest (Creevey *et al*) and in some cultures may charge a fee to hold funds. This fits some evidence (Schrieder and Heidhues) that the supply of rural savings is not very price-sensitive, thus increasing interest rates will have little effect on incremental savings.

The BRI/KUPEDES example demonstrates clearly the demand for deposit services among rural residents. The poor will entrust their funds to money keepers for free or perhaps even for a fee, and actively seek other convenient institutional vehicles for deposit-taking when such vehicles are offered. The key word is "convenient." While the debate concerning interest-responsiveness of deposit taking among the poor is far from being resolved, voluntary deposit schemes are successful by their very existence in attracting deposits. These offer control to the poor, permitting the depositor to draw on his or her own resources in times of penury to avoid going into further debt at this worst possible time.

Articulate proponents of forced deposit schemes—including successful practitioners of microcredit—argue that voluntary deposit schemes will not generate sufficient funds to support lending programs, or that they offer no partial collateral in case of borrower default. Whatever the argument, forced savings remains an integral part of many programs, many of them successful such as those of FINCA. To some extent this argument fails to rebut the argument raised by proponents of deposit mobilization: the proper test (which has not been attempted) would be for an institution to propose to mobilize deposits to place on a national money market or its equivalent (T-bills, foreign accounts, and similar market instruments) and determine which service is more sought after by the poor. Without the resources to perform this experiment, more research is called for on whether voluntary savings schemes (which are more costly to implement) or forced schemes, or both, respond better to the demands of the poor.

Africa offers fewer (and less successful) examples of deposit mobilization. Cameroon Cooperative Credit Union League (CamCCUL), the apex organization of the Cameroonian (mostly English-speaking provinces) credit union movement, had 75,600 members in 1991 of whom about 23,000 were rural people, and 22 percent were women; there is no breakdown by income, but the English-speaking provinces are relatively poorer than the French-speaking provinces which justifies their inclusion in a description of generally more micro-oriented programs. Sixty-five percent of branches are in rural areas. The league makes more loans than all private banks combined (almost three times as many). CamCCUL is a net mobilizer of rural savings, with its unlent funds placed in time deposits at banks, where it is able to negotiate higher than market rates for its members, thus intermediating with the formal financial system. In 1989, CamCCUL deposits represented 28 percent of total deposits in Cameroonian banks in Northwest Province. However, member savings are required for subsequent access to credit and seen by them as a cost of that credit, not as a distinct service. Also, CamCCUL and its members were seriously hurt by the collapse of the banking system in the late 1980s and the freezing of its deposits (Gurgand *et al*). Finally, CamCCUL has been severely constrained by the Central Bank interest rate ceiling on loans; real interest rates on loans have been negative to slightly positive and its deposit rates of necessity have been lower.

In the last several years in Africa, the banking sector is largely moribund as it recovers from restructuring and the informal financial sector has responded to the growing demands of the informal providers of non-financial goods and services. Deposits mobilized by money holders rose: Ghanaian *susu* collectors' collections rose 64% from 1990 to 1992, while the number of depositors rose by 48 percent in urban areas, 5 percent in rural areas. There were similar increases in Nigeria, Tanzania (57 percent increase in real terms 1990-1992) and Malawi. Money-holding cycles are typically very short, weekly or fortnightly, and used more for security and to assure working capital, not net deposit-taking. The growth of lending by moneylenders has been slower than that of savings and cooperative associations and cooperatives (Aryeetey *et al*, pp 11, 13).

There is a two-way link between deposit facilities and sustainable services. Deposit mobilization is essential for sustainability; sustainability is essential to attract deposits and funds for transfer and other services where an element of trust is essential. Fiduciary responsibility to depositors reinforces the collection ethos and social pressure on borrower; high collections in turn reinforce sustainability. Conversely, low sustainability both results from and contributes to withdrawal of deposits, distrust of institution as an agent of intermediation, and higher tendency to attract rent seekers and poor projects who a higher risk of default.

Finally, deposit-taking is linked to lending. Deposits provide information to the lender about potential borrowers, create a basis of mutual trust, and facilitate the accumulation of a down payment or equity share (Gonzalez-Vega, 1994). This relationship-building process is an easily observable component of informal financial relations (Creevey *et al*), and one which has been copied successfully by NGO programs attempting to emulate these informal relations (Christen).

Credit

The subject of credit has been covered in passing in the above discussion and not much more is going to be added. The most significant contributions of the new financial innovations concerning credit have been:

- Subsidized-interest rate credit programs have consistently been abused by rent-seekers and have not reached the target group of the poor. Their presence has undermined more effective financial institutions. The evidence is not so clear on institutional subsidies which do not distort interest rates or loan collection effort, as discussed later.

- Minimalist credit programs (which do not tie credit to other services) are much less costly than full programs, and because of the fungibility of money appear to be just as successful or even more so than linked programs.

- The poor will pay full market interest rates, including the higher costs of intermediation for small loans.

- Emulation of informal financial mechanisms (described above) permits design of lower-cost and sustainable credit delivery systems.

Despite the growing interest in deposit mobilization, credit-only programs continue to draw support and are well represented in the studies of best practices in financial assistance to the poor.

Dealing with risk

Risk management includes diversification of assets, from livestock to gold to money keeping with potential future lenders to bank deposits, each with its individual riskiness which is fairly unrelated to the risk of the others. It includes accumulation of reserves for precautionary reasons such as to survive emergencies or periods of low cash flow, for speculative purposes or to take advantage of unexpected opportunities. It includes developing a relation of trust which makes the depositor credit worthy. Here we look at risk from the point of view of the client attempting to manage risk. The desire of society to control the riskiness of its financial sector was analyzed under regulatory policy, earlier.

The sustainability of the institution has always limited the role of donor finance. Although the arguments are made with conviction but little direct evidence, several reviewers note that subsidized credit programs (including particularly the Indonesian government programs where deposits earned 15 percent while loans were made at 12 percent) lead to unwillingness to deposit as well as rent-seeking behavior by clients of such risky institutions. Second, the explosion of voluntary deposits in rural Indonesia indicates that flexible deposits are an important tool of risk management for the poor. Third, the provision of deposit services has meant that in times of duress the poor can draw on their own savings rather than incur further debt at the worst possible moment.

Risk aversion on the part of the poor has been widely observed. It can also be met by offering a variety of institutions and products with different characteristics, and tailoring the services to those sought by the clients. It argues for a permissive regulatory regime which permits a variety of financial institutions to compete for services, and for transparency in the regulatory framework so that depositors know who is responsible for monitoring risk and controlling management of the institutions — the local depositors or the distant government.

Factors Affecting Ability of Financial Institutions to Reach the Poor

The "success stories" in related fields have had mixed success in reaching the poor. Three of the complementary factors to financial services (whether positive or negative) are discussed here: subsidies, apex organizations, and social intermediation.

The evidence on the mix of services offered by institutions is unclear. While some of these services (social intermediation in particular) may be necessary to reach the poorest of the poor, generally minimalist credit programs offering credit only and leaving other services to others have been the most sustainable in recent experience. Also, there is growing evidence that a diversity of services is required and that no single program will suffice. This is due to the heterogeneous needs of the clients and the need for institutional strengthening: graduation and dropouts weaken the organization by removing the strongest clients and may do a disservice to the clients if they have not yet developed personal or business relations with other financial intermediaries. It is possible that rather than graduation, the introduction of new services will retain the strongest clients. For example, ACEP uses its most dependable clients as informal credit retailers to small and poor borrowers who would not otherwise qualify for ACEP's programs, and as proto-credit reference bureaux capable (within a village) of distinguishing good clients with poor collateral from solid-looking clients of bad character.

Subsidies

There are examples of very successful subsidized credit programs which should not be forgotten in the debate over the well-known problems of development banks. Germany's *Wirtschaftswunder* after the World War II was fueled by well designed — subsidized — credit programs under the Marshall plan. The crucial factors in the German credit programs' success were the existing and already well functioning refinancing institutions and network of commercial bank branches which treated the subsidized credit according to professional banking principles. In comparison, development banks lack a branch network close to the borrowers, skills and experience, and perhaps because of these factors, as well as political influence they neglected principles of sound banking.

The debate over subsidization of interest rates in poverty oriented rural credit programs has largely subsided, with the proponents of market interest rates having demonstrated time and again that this approach is acceptable to the poor and is the key to sustainability. None of the best practices surveyed had an explicit subsidy on the interest rate. Many, however, had an implicit subsidy in the form of constrained interest rates which did not cover the full cost of providing the service. The most frequent source of this constraint is a legally-imposed ceiling or usury rate, which affects programs such as ACEP and most credit union programs in West Africa.

The debate is far less clear on the impact of institutional subsidies, particularly for microlending to the poorest of the poor. Grameen Bank may be the best known poverty program, but its subsidy in the form of interest-earning securities donated by IFAD and later by other donors is less well known. BRI's Unit Desa system operates without subsidy and indeed has been highly profitable to BRI since 1985, but the average loan size for BRI ($720 in 1993) is considerably larger than for Grameen ($158) and cannot be called “poverty” lending.[12] Those who argue for the institutional subsidy note that, unlike an interest rate subsidy, this does not distort incentives to obtain credit (including rent-seeking behavior), to use inappropriately capital-intensive technologies, or for lenders to discourage deposit mobilization. If it is necessary to subsidize to reach the poorest of the poor, institutional subsidies are more benign for their impact on incentive structures than the distorting destructive interest rate subsidies of the past.

Apex organizations

Apex organizations are federations or umbrella associations regrouping financial intermediaries of a common type (such as cooperative credit unions). They also serve to intermediate funds from surplus to deficit units within the organization or act as agent for intermediating with financial markets

[12]The average loan size for Badan Kredit Kecamatan, a BKD of Central Java, is around $75 without subsidy.

outside the organization. While there are no apex organizations dedicated solely to financial services for the poor, several organizations target poor regions, sectors or social classes. The political opportunity to "capture" the national institutions of these movements to achieve political objectives led to the collapse of the cooperative movements in Zambia and Kenya through "encouraging" the apex organization to direct surplus deposits of sound cooperative credit unions to unsound units; many of these unsound units were created specifically to benefit from the social programs, and some continue to exist within the movement (Creevey *et al*). CamCCUL's arrears of 20-30 percent are due primarily to a political elite borrowing more than allowed under formal rules and not repaying. Other programs have managed to avoid political capture, but the danger is ever-present.

The system of apex organizations is particularly relevant to credit unions, which have the greatest experience of establishing their own structure outside the banking system and also the greatest losses by capture of these organizations. The motivation appears to come from the non-profit status of the credit union movement, and is thus motivated by institutional requirements rather than economic efficiency. Recently many of the credit unions of Senegal merged to establish the Crédit Mutuel de Sénégal under the credit union legislation, but the experience is too new to provide guidance. Many successful NGO approaches use the formal banking sector as intermediaries, some on the principle that NGOs should not handle funds.

Banks that extend microenterprise, rural or poverty programs provide their own apex network. The BRI/Unit Desa program is perhaps the most significant of these in terms of numbers of people affected and the ability of the institution to intermediate funds from short-term deposits in areas with few and very particular opportunities for high-profitability investment, to longer-term loans with high returns to the institution. Despite BRI's public ownership, it has avoided political direction of the KUPEDES/SIMPEDES program through leadership from the Ministry of Finance and probably because it has proven such a successful alternative to the directed credit programs of its own past and of other institutions in Indonesia.

Social intermediation

Some evidence exists that the poor require "social intermediation" to involve them in improving their access to sustained financial sources, to develop their self-confidence, and to improve their management skills. Grameen supports several of the necessary developmental steps to deal with poverty. It helps empower women, makes them familiar with a cash economy, promotes birth control and literacy and helps raise family income. Grameen replicators, however, generally address only the credit component and the collateral value of group guarantees. If these social intermediation steps are not included, the replicators may not achieve the poverty elimination goals they address.

NGOs have been observed to muddle social and business goals within a single institution. Also, the involvement of NGOs often involves grant financing which interferes with the development of sound financial management. Therefore these "social intermediation" activities require careful design. While it is unclear whether this approach is superior to the minimalist credit approach of several organizations, it is clear that the minimalist approach does not reach the poorest of the poor, whereas these programs are able to target this group.

Financial Services for Women

Women and women-headed households represent an important subgroup of microentrepreneurs, the rural poor and the poorest of the poor. Often, the formal legal system and the traditional value system hindered women's access to financial institutions: they were prohibited from opening accounts (at all, or without the cosignatory of a father or husband) or from receiving loans. Farmers' clubs, cooperatives and other organizations were frequently—and continue to be—led by men or have entirely male membership. In some countries women cannot travel alone, for instance to visit a bank branch. This is inconsistent with their important economic roles as producers of food and as micro-entrepreneurs. However, some of the strongest informal financial organizations, such as ROSCAs, are women-only or women-led organizations developed as support organizations by women themselves.

Drawing from the success stories in financial services, an institution must have certain characteristics and policies if low income women are to be reached since (*What Works*, p. 5):

- women have less experience in dealing with formal financial institutions;
- women tend to have fewer assets and smaller enterprises;
- women are less likely to own land or other collateral; and
- illiteracy rates are higher among women.

Consistently women have repayment records better than men, and group guarantees work better than with men or mixed groups. Attempts to emulate these organizations have created some of the strongest financial intermediaries serving women. The services provided successfully have featured personal interaction, an informal banking atmosphere, small loans, alternative collateral requirements, and simple application procedures.

The recent literature also features attempts to incorporate the needs of women, including poor women, that have gone awry. For instance, much legislation has been misguided—credit union laws that prohibit discrimination in membership on the basis of sex to assure access by women; this frequently leads to less responsible men damaging successful all-women organizations. A second adaptation which has had mixed results is a stress on "productive" credit: women's household responsibilities lead them to prefer to have a choice between productive and consumption credit; if cash is spent for productive purposes, they often need to cover family expenses by borrowing. Several success stories recognize this fungibility and do not require that the loans be used for "productive" purposes.

NGOs

Several success stories are NGOs which have converted themselves into financial intermediaries. Their strengths have been their close understanding of their clientele, and often a willingness to involve the poor in the design of the programs themselves. In some cases they have been able to design and implement important complementary measures to address the conditions of poverty. However, in this transition these NGOs have shown several weaknesses as financial intermediaries for the poor (Adams, 1994):

- NGOs are small-size, high-cost lenders. Much of this cost is often concealed in subsidies, such as expatriate personnel. The Philippines National Credit Council proposed in 1995 to address poverty by transferring all poverty-oriented finance to Grameen replicators run by NGOs, before noting that the average number of clients for the few successful NGOs was 75, so that in order to reach the nine million poor it would take 120,000 NGOs run to the standards of the best two or three in the country.

- NGOs operate outside the formal financial system without supervision and regulations to protect depositors. This has its strengths and its weaknesses, including the risk of fraud.

- NGOs may compromise their own principles and sources of strength by becoming dependent on donors for funds. This donor dependency may impose limits on expanding services, raise borrower's expectations and lower their willingness to repay loans.

- NGOs generally lack sound internal incentive structure and standards for performance which are important for all NGOs but essential for NGOs dealing in financial services; they are not disciplined by market forces to become efficient.

- NGOs generally lack linkages with other intermediaries to expand borrowing and lending activities within the broader financial network. The background of their members often makes them distrustful of bankers, and more inclined to attempt to build apex organizations or a parallel banking network to achieve their ends, with the costs and possibility for corruption of goals that entails.

Informal Finance and Intermediation Between the Formal and Informal Systems

A better understanding of the informal financial sector has had a multiple impact on the provision of financial services for the poor. First, researchers have come to respect the informal sector for the services which it delivers more efficiently than formal institutions. This is particularly true in rural areas, where transactions costs of dealing with geographically dispersed customers with low volume transactions for often risky agricultural investments are high for formal institutions. Second, the successful approaches to financial services have emulated informal sector’s techniques, processes, and products to become more accessible and useful to the poor. Third, several innovative activities and regulatory reforms have attempted to improve the intermediation between the informal sector with its low costs and high effectiveness and the formal financial system which is capable of transferring funds from activities with a lower return to those with a higher economic return.

The relatively low transactions costs of informal lenders demonstrate a relatively efficient solution to the information and enforcement problems, so the coexistence of informal lenders with the formal sector does not depend on avoiding the costs of government regulation and taxation. But the informal lenders cannot intermediate in bulk or reduce costs through economies of scale (Aryeetey *et al*, p 25). In the absence of a market determined transfer price (the rate at which an informal institution can obtain funds from or place funds on the formal money market), informal and semi-formal institutions tend to underprice savings compared to their social value and for the same reason give an implicit subsidy to loans; intermediation helps them to "get prices right."

Several institutions worldwide have had some success at intentionally targeting "crossover firms", or firms with strong networks in both the formal and informal financial sectors, to increase lending to small and poor productive enterprises. For example, in Senegal (within a still-repressive financial regime which limits formal sector interest rates to twice the rediscount rate, or 15 percent in mid-1996) both CNCAS (the agricultural development bank) and ACEP (the emerging small business financing company which lends to the cream of the unbanked small business community) lend to sound borrowers who in turn provide working capital in the form of cash advances to suppliers. In South Africa the new Khula Enterprise Finance, spun off from the Development Bank of Southern Africa, intends to serve as financial intermediary by raising funds from the commercial banking sector which is a net deposit-taker in poor towns and townships, and on-lending wholesale to the NGOs, community banks and other organizations which are net lenders.

Informal sector repayment rates are better than in the semi-formal and formal sectors. Despite common perceptions, there is no evidence this is due to more aggressive contract enforcement. Rather, informal lenders use the least costly enforcement mechanisms. Peer pressure and social stigmatization are often effective, until the number of defaulters becomes large and the stigma fails to be effective. Additionally, informal lenders live in the same community as their customers and the storage and maintenance costs for seizing collateral are less than for a formal institution, making the threat of seizure much more credible than a similar threat from a formal institution (Aryeetey *et al*, p 21).

TECHNOLOGIES

The major technological constraints facing financial intermediation for the poor include:

- Branch banking costs, transaction costs and services to the poor;
- Information and contract enforcement among the poor
- Levels of resources and risk management; and
- Cost of monitoring decentralized operations.

New technologies cannot be viewed in a vacuum, as their effectiveness depends heavily upon the macroeconomic climate and the policy and regulatory regime within which they function, as well as internal governance and incentive structures. With this caveat, the following technologies have proven effective in addressing the above mentioned constraints to financial services to the poor.

The technological innovations address these four constraints by moving in two directions: First, through emulating informal institutional arrangements, which in turn has two elements—interaction with the client, and interaction with the national system of regulation and supervision of financial institutions. Second, new innovations—many based on personal computers—permit reducing cost of existing activities or allow introduction of new products that address the needs of the poor.

Interaction with poor clients has required banks to establish new branches in areas previously unserved, or to open new entrances to segregated facilities within their existing buildings to avoid intimidating the poor through the brass, shine and formalism of regular branches. It has also required hiring a new staff because traditionally trained bankers were inappropriate for the informal-sector environment created. First, most traditional bankers are men, while the poor or the bankable poor are largely women who may be more comfortable dealing with other women. Second, local credit officers should preferably come from the same social background, speak the language of the client, and have respect for the client in order to build a relationship of mutual accountability. Third, they should be attuned to their clientele and be attentive to their service needs. Fourth and foremost, the skills required to determine credit risks are so completely alien to formally trained bankers that their training serves as an obstacle to profitable response.

Group Guarantees or Group Lending

Mohamed Yunus and Grameen Bank have contributed greatly to knowledge of effective guarantees and collateral substitutes. Group lending or group guarantees has a long history in donor programs. Until the 1980s, this history was usually one of subsidized credit perceived by the recipients as a grant. In such programs the guarantee would fail when one member defaulted on a loan payment. The remainder of the group would find joint default an easier path than honoring the guarantee perhaps by having observed peer’s defaults and the lender's failure to respond. The methods of group lending and/or group guarantees developed by Grameen are now often successfully employed in formal institutions. These methods have been found to be not only an effective method to reach the poor but also a way to improve the financial viability of the financial intermediary by reducing the risk of default and lowering transactions costs to reach dispersed clients with small loan sizes (Schrieder and Heidhues). Given the earlier failure, it is evident that it is not the group guarantee that is important but how it is applied.

Grameen's clients are the poorest of the poor and are, perhaps, perceived as having no "second chance" as they would with most donor "grant" credits. They are primarily women, who have stronger solidarity groups than men among the rural poor. The groups were formed independently and not solely for the purpose of credit and were not organized by the lender (organizing groups solely for that purpose was a failing of earlier schemes). Additionally, the groups had a governance structure that would be stressed by nonpayment by a member but could also respond to that stress. Grameen enforced guarantees ruthlessly, a fact overlooked by some reviewers of the program. Thus, Grameen introduced effective group guarantees as a replacement for tangible collateral, that are particularly suited to the poor and the food insecure.

This replacement tool has been adopted by donor-supported Microlending Projects and "Grameen Replicators" as well as by other programs in dealing with small savers and borrowers in order to develop client participation through building self-reliant groups that reduce the costs and risks to banks. The practice has been applied sometimes wisely but often poorly due to misunderstanding of the full dimension of group guarantees. Experts are still debating under what circumstances this tool works and where it fails. Some of the most successful programs in terms of outreach and sustainability do not use group lending or group guarantees. Programs to reach the poorest of the poor, however, must use group lending coupled with ruthless enforcement against defaulters to meet their cost goals. There is no consensus yet on the advantages of forming groups specifically for the purpose of on-lending. While some such activities appear to work, others have been perceived by the recipients as "a cost of credit" just like forced lending, and the motivation to maintain the group has been overwhelmed by the temptation to default jointly. There is also some debate whether the group lending approach can function effectively among geographically dispersed populations, though there does not appear to be evidence that low population density *per se* is a reason for failures of group guarantee or group lending approaches.

Group development has also permitted the development of parallel financial institutions focused on the participation of group members (ROSCAs, Bank-NGO hybrids, cooperative banks), and which intermediate members' savings to productive investment with a primary view to safety of and return on these deposits.

In economists' terms, either of these solutions improves the functioning of markets because of the low cost of information about the true risk of a borrower within the group, whereas an outsider to the group would have to charge a substantially (perhaps prohibitively) higher risk premium to compensate for the lack of this knowledge. Group guarantees are generally effective in influencing loan recovery. However, a system of group collateral can backfire when the guarantee is not ruthlessly enforced, contributing to collapse of loan repayment discipline (as occurred with BIMAS in Indonesia).

While Grameen reinvented group guarantees and other successful programs have adopted this methodology, it is not always clear which particular aspects of these programs differ from those of unsuccessful past programs where group guarantees led to group defaults. The importance of this distinction is emerging as we begin to learn the results of implementing "Grameen replicators" in Asia and Africa. Initial lessons emerging from group lending or guarantees appear to be:

- Groups with an existence independent of the awarding of credit are more successful than those organized expressly to receive the credit. While the promise of access to larger future loans is intended to motivate co-guarantors to assure repayment, this incentive to cohesion appears to be less powerful over time than competing centripetal incentives unless the group has an independent reason for cohesion. Outside organizers must exercise caution in their design of groups.

- Groups organized to receive credit appear to become unstable (according to evidence from Grameen and longer-lived experiments such as Burkina Faso) after several rounds of lending. Some original group members find their limited borrowing needs met. For other members, earlier rounds of borrowing now permit them to finance growth from less expensive and more flexible internal funds. Still others are tempted by the rising loan size to take the money and run, revealing the same moral hazard which leads many *tontines* and ROSCAs (which the programs are designed to emulate) to collapse. The remaining members of the group must either be reorganized into new groups (which has implications for "ownership" of group membership) or be treated as individual borrowers.

- Among groups organized to receive the credit, those providing additional services were perceived to be of value by the poor (such as empowerment activities by Grameen) and were more stable than those organized around credit only.[13]

- Several reviews report successful group lending in urban areas (or densely populated rural areas, such as Bangladesh or Indonesia) and among entrepreneurs (since most of the literature applies to MSEs rather than poverty lending) with close knowledge of the operations of other group members. Reviews of programs in rural areas (Webster and Fidler) generally discuss the same factors as those in urban areas. There are few explicit comparisons, except for ACCION's evaluation of its own programs (Christen), thus this comparison appears to be conjecture.

These findings in general are limited by the newness of these programs and by the limited experience with repeated loan cycles. Group lending is one of the most controversial technologies being applied. There is not enough experience to permit us to make general statements about where group lending or guarantees are useful and when they are superfluous. Given the importance of Grameen replicators in the current programs of donors, this is an important research need.

[13]This is not a rejection of the "minimalist credit" model but an exploration of group dynamics which is important to anti-poverty financial intermediation.

This section has treated group guarantees (where loans are made to individuals but members of the group jointly guarantee the repayment of each loan) and group lending (where the loan is made to the group, which makes subloans to some or all of its members, but all members are jointly responsible for installments on the original loan) as equivalents. While administratively group loans and group guarantees are not equivalents, functionally they are similar. There is no recent literature distinguishing the two, despite the difference the organizational form makes to distinguish poverty lending from microenterprise lending.

Programming Repeated Loans of Increasing Size and Duration

Most of the successful programs develop a credit history of clients by limiting them to small loans, often of short duration. Successful and timely repayment makes a borrower eligible for larger credit limits and longer loans which enable continued business expansion. This provides an incentive for prompt and complete repayment to obtain credit in the future and, more important, for developing an ongoing relation with a banker. This relation has been found more beneficial to poor users than obtaining a single time loan. Repeat lending may permit an institution to weed out early the borrowers who are unwilling to meet repayment schedules. It may also reduce the moral hazard associated with high interest rates discouraging good borrowers but encouraging gamblers and frauds. However, experience in China and Burkina Faso has shown a high drop-out rate from such programs, either because there are few local opportunities for larger investments (may be borrowing in order to meet seasonal cash flow problems) or because the cash flow generated by earlier investments permits the borrower to finance further growth from equity. There is also mixed evidence of a “reverse pyramid scheme” wherein at a large enough loan size it become worthwhile for the borrower to default on the loan despite the threat of receiving no further loans from what is now a relatively small institution compared to the borrower's needs.

Savings or Deposit Mobilization

The change from a lending approach to a full services approach has been the most significant innovation in rural finance. The belief that the poor do not save had changed to an understanding that the poor have a high rate of savings and a need for flexibility in access to funds for purposes of a risk cushion against expected as well as unexpected income and food shortages. The poor need to benefit from unexpected opportunities for profitable investments, and to build funds for an equity contribution or for enterprise activity. As a result of better understanding of the financial needs of the poor, the designers of financial systems have been responding successfully to develop sustainable organizations.

The rural poor seek the most deposit-taking or voluntary savings programs service. When given the option, during periods of hardship due to food or income shortage, the poor more than other groups are particularly unwilling to assume additional debt. Savings or deposit accounts have been an especially sought-after service.

However, many of the innovative programs continue to retain forced savings components. Some advocates of this approach maintain that their members require this component. Others believe that it is necessary to maintain a feeling of “ownership” of the institution.

Deposit mobilization has made sustainable many programs which previously channeled funds from donors, governments or wholesale financial institutions to poor borrowers. They have also diversified the financial base and increased independence from government interference in their organizations. As noted however, it has run into problems with the regulatory environment which in several countries considers institutions taking deposits as well as lending to be engaging in banking functions that require registration under the banking act.

Reducing Transactions Costs

Simplifying credit application forms or approval procedures and increasing the decision authority of field offices have reduced costs in terms of time and money to the client in some programs, albeit at increasing the need for vigilance against internal fraud or risky behavior within the organization. ACCION's program has concentrated on emulating the informal lender in terms of the business and physical proximity to the client. BRI's program of voluntary savings greatly reduces the cost associated with access to owner's funds. Programs which associate financial services with other services to the poor can conduct financial business at very low additional cost while engaging in other activities supported by the organization, as in the case of FINCA. Other technologies have been applied also to reduce costs, including standardizing products and introducing new technologies.

Standardized products with fees

Some of the best practices, including credit unions in Niger (and elsewhere), K-REP in Kenya, and the FINCA practices, show that custom loan design is an expensive luxury. These programs have standardized products meeting the needs of classes of borrowers (crop loans, commercialization loans); any custom-tailoring comes from a choice of more than one loan (or more than one anti-poverty institution) by the client. The ability to design a product with specific fees has another important result: no specific interest rate is stated. Credit unions in Niger were charging an effective interest rate of 32 percent, twice the usury rate, to satisfied clients who, moreover, were in a Muslim society with strictures on the charging of interest. The introduction of specific products thus serves two goals: cost reduction and full cost recovery in hostile policy or social environments.

Computerization

"Transactions technologies" such as computerization, ATMs and smart cards which are discussed in the following few sections are only tools, and should not be confused with the technologies which improve the delivery of financial services to the poor. Combined with other techniques, they offer great possibilities for reducing costs of financial services, providing new services impossible without this technology—most of which have not yet been conceived—and increasing the outreach and quality of programs to aid the poor and micro-businesses.

The advent of personal computers has revolutionized the accounting necessary for small loan and credit programs. Programs such as the FAO's Microbanker have greatly improved management of small financial institutions, though several NGOs have had difficulty adapting their own internal record-keeping to these somewhat generic programs. Good PC based core accounting systems like

Microbanker are only now coming on to the market. The movement by organizations to use core accounting tools is driven by changes in both supply and demand due to wide availability of inexpensive and convenient-to-use bank software, while the capitalization and deposit mobilization necessary to become sustainable has forced semi-formal organizations and programs to be classified as banks under the restrictive national banking acts. This imposes high financial costs in terms of observing conservative prudential requirements and high operating costs in terms of new internal monitoring and the reporting requirements to regulators which are reduced by these programs.

The innovation in computer technology is occurring at a time when banks are attempting to move down-market to offer services to microenterprises and the poor, a market in which they are hampered by their high costs. At the same time many NGOs are moving up-market by becoming financial institutions despite their traditional hostility toward banks and bankers and their unfamiliarity with the requirements of banking. New agents are seizing on the new technology to enter this market niche. This movement facilitates the innovations by making it possible to offer new products and technologies in a cost-effective manner and as a result increasing competition for the financial services of the poor. The increased competition should improve efficiency and lower the costs borne by the user of the services. The field is developing rapidly, and while it possible to identify only one example (SBGT, which is not a poverty program), the next few years should produce case studies for others to reduce costs. There appears to be a special place in the practitioner's toolbox for computer-assisted analysis of relevant income and expenditure data recorded through smart card programs.

Automated teller machines and point of sale terminals

Besides computerized bank accounting systems, specialized **transaction technologies** are greatly reducing transactions costs. ATM equipment and “smart” cards (“smartcards”) are the leading edge of this movement. ATMs are unstaffed neighborhood outlets where deposits and withdrawals can be made cost effectively for the poor. This in turn is making it possible for even conservative and highly regulated commercial banks to extend services to townships and slums.

South African commercial banks are rapidly increasing the number of ATMs in black townships and rural areas (“Digit-al Cash”, 1996). First National Bank and ABSA, two of the three largest banks, have been innovating with ATM services to deliver pensions to villages too small to be served by branches. This is politically popular because it reduces the number of rural pensioners who must pay check-cashing fees to merchants, it reduces theft of cheques and is estimated to have reduced fraudulent claims by 15-20 percent. It is this reduction in fraud which makes it worthwhile for the provincial governments to award FNB contracts that cross-subsidize the otherwise-unprofitable service.

ATM technology is being used for transfers even on an international scale. To capture more inward remittances from the thousands of Filipino expatriate workers in Milan, Citibank installed an ATM in its Milan branch (of its four machines) with instructions in Tagalog. The user would deposit Lira and the Peso equivalent would be delivered to their family in the Philippine provinces within five days. From the point of view of the family in the Philippines this is a significant contribution to their coping mechanisms. However, the system collapsed due to problems with Citi's exchange rates and the efficiencies of less formal systems.

Smartcard technology

ATM cards with an embedded microchip, called smartcards, are still a novelty and their use to provide financial services to the poor is still evolving. Smartcards deter fraud by forgery or revaluation with unauthorized funds and leave a clear audit trail for reconciling accounts with participating banks. They do not require literacy. Credit worthiness and risk of fraud limit the use of credit cards, but smartcards can be issued to anyone. Unlike debit cards and ATMs which require expensive terminals and reliable telecommunications, smartcards can function off-line with battery-powered readers. Smartcard transactions without on-line authorization are rapid, which is important for retail outlets with a high volume of customers. Smartcard technology increases sustainability or profitability because costly branches are required only for those sites where credit management or non-transaction related client services are required. Small or specialized banks can establish partnerships and agency arrangements with established organizations. While there will be rapid changes in this area in the future, this paper surveys the examples to date.

In two provinces of South Africa, FNB has implemented its pension cashing program through the use of mobile banking and biometrics, with a digitized fingerprint on the smartcard and an electronic scanner in the ATM. While this is both secure and useful in a country with 46 percent adult illiteracy among blacks, the security cost of mobile banking and the maintenance cost of operating heavy, armored vehicles on village roads inflates the operating cost. Currently, the technology is being adopted by Namibia.

In Swaziland, the SBGT pioneered the use of smartcards in making loans to low income clients for small loans and microloans as described earlier. The card serves both to disburse loans and to collect repayments. SBGT technicians can download a complete cash flow analysis from the card. SBGT smartcard is accepted in all major commercial banks in Swaziland and customers have found it easy to use. SBGT acts as a virtual bank, without the investment in the building, security systems, electric supply or telecommunications infrastructure. By installing battery-powered smartcard terminals in Swaziland's four major banks, their branches in the country's two major cities, and major suppliers to small businesses, SBGT has effectively developed the country's largest banking network.

The minimal hardware—point of sale-type terminals at SBGT, bank branches, and major suppliers—costs $1,000 per unit, and a new generation costing $500 is currently being introduced. Smartcards for financial transactions—the secure reprogrammable variety that is much more expensive than the disposable card used by many telephone systems—cost about $8 each, but can be reprogrammed after being returned by graduated borrowers. The price of cards was reduced by fifty percent in the past two years and is expected to continue falling rapidly. SBGT invested approximately $100,000 in the smartcard technology and banking software while integrating the technology through a “smart wall” to a low-cost bank management software package which controls the smartcard system. Today, a similar system would cost about a half of that amount. The system can be extended to provide savings services (which are already provided for on the card itself) through merchants as agents.

The Agricultural Bank of Malaysia has introduced a small business lending program based on smartcard technology and ATM access. Two major Indonesian banks—BRI and Bank Dharmala —are considering the technology because the telecommunication infrastructure in Indonesia does not allow efficient on-line payment services. Thai Farmer's Bank is considering smartcard technology use and pilot testing for other banking applications is underway in China, Vietnam, and the Philippines. In Europe, the Czech Savings Bank, with 2,000 offices, has issued smartcards for loan management. Loan approvals are centralized, but field offices can disburse against the smartcard. Also, users can purchase from many suppliers which have card readers, reducing client risk to these suppliers and improving cash handling. It is unclear to what extent this system has been used for lending to the poor, or what possibilities are being tested to build on the already developed infrastructure to extend financial services to the poor.

In the United States there has been some testing of using smartcards not only for welfare or food stamp transactions (to reduce theft and fraud), but for use of the same cards to assure that immunizations and other services which society delivers to the poor are current. This service has been very popular with both the poor clients and the anti-poverty bureaucracies, but is not yet widely used.

From the viewpoint of managing the bank or poverty-oriented NGO, smartcards improve efficiency through card security and bulk electronic settlement routines that produce accurate accounts, provide a fully transparent and tamper-proof electronic audit trail, and reduce central accounting time. Similarly, this encourages merchants participation because they benefit from reduced cash handling. The improved efficiency and the low price suggest that smartcard technology will become more important in the transactions of poverty-oriented programming, but it is premature to predict the types of products that will be developed in the future.

Frequent, Regular Payment Schedules

Frequent payments—monthly, weekly or, in some rare cases, daily—is an important instrument of successful repayment of credit to the poor. It has been borrowed from informal finance and extended to savings programs. Some poor, landless households have variable small but regular income throughout the year from wage labor or small businesses. This lends itself to a program with small weekly savings contributions or loan installments. Such small weekly installments are manageable to poor households and effectively enforce a discipline of weekly thrift while making the funds unavailable for luxuries or for responding to the needs and wishes of friends and relatives. In some programs regular savings contributions are a criterion for loans. This may be in the form of a forced savings program still used by many credit-oriented programs, or in the form of procedures that use savings capacity as a criterion to determine the largest loan for which the borrower can afford to meet weekly installment payments from non-investment sources. Finally, regular payments are administratively simple to calculate and to administer and are understood by both borrower and lender.

Many of the poorest of the poor, however, rely on odd jobs, begging, or subsistence agriculture, all lumpy sources of cash income. Those with irregular incomes have not only difficulty in making regular loan repayments, but also in making small regular savings deposits. While programs with regular payment schedules (whether for savings or loan installments) are a useful technology, they may be inappropriate to reach the poorest members of society. Thus, while schemes with regular, frequent payment schedules offer a cost-reducing technology with effective results, other, potentially more expensive savings or lending schemes must be used to reach the poorest of the poor.

Rigorous Performance Monitoring, Sanctions, and Enforcement

Most success stories suggest that rigorous monitoring of loan payment and rapid follow up is essential with small and poor borrowers. It has been made possible by the introduction of personal-computer based monitoring systems and— in some cases — new hardware and software possibilities offered by ATMs (discussed earlier). The ACCION findings that one shouldn't supervise the loan but rather rely on an ongoing relationship and the ability to affect that relationship in the future apply also in a longer term horizon. Grameen's experience with lending to the very poor is that failure to intervene rapidly can lead to repayment problems getting out of control or even to collapse of the guarantee group.

Despite the testimony from the Grameen experience concerning the need for sanctions, there remain problems associated with maintaining these sanctions in rapidly growing portfolios. More work still needs to be done on both management information systems and on management personnel development. ACCION and others are currently investing a lot of time in strategic planning, training, management development, and MIS, in order to be able to maintain sanctions as their programs rapidly become larger and less personal.

Incentive Structures

The "new institutional economics", which looks at how institutions define property rights and incentives, constrain individual behavior, and embody governance (de facto regulatory) rules, highlights the need for increased attention to incentives. Internal incentive structures influence individual choices, both on the side of members of the organization and its clients. Donor or government regulators have an important role to play in ensuring that organizational designs create the "right" incentives for clients and financial institutions.

Although BRI in Indonesia did not use transfer pricing to establish an opportunity cost for funds lent and for deposits mobilized, the designers of KUPEDES and SIMPEDES were able to benefit from the fact that the Unit Desa accounted on a cash basis to the bank branches which supervised them. This permitted the establishment of a transfer price of funds between the branches and treasury. From this data, an incentive program was developed which rewarded branch staff not only for the profitability of their program (stressing income, not loans made) but also for the profitability of their product. This incentive program removed a strong institutional bias against voluntary deposit mobilization (which, in the absence of an appropriate transfer price, appeared as a cost to the branch rather than a source of revenue).

A participatory approach to institutional design has proven useful in the development of several successful organizations and has in some cases spelled the difference between success and failure in the replication of two of the "standard" models of semi-formal institution, the credit union and the Grameen replicator. Institutions that are patterned on these two successful models but do not meet the socio-cultural and economic constraints of the clients are likely to fail.

MEASURING AND ASSESSING PERFORMANCE

Funds committed to special-purpose financial institutions have an opportunity cost and therefore the performance of state and donor resources should be subject to financial, social and economic evaluations. Judgement needs to be made as to the most effective use of scarce funds and their impact over time. Recent innovation is the development of a framework for measuring the performance of financial institutions. While this framework is too new to have been applied to a large number of organizations, its application will help to make more informed choices about the costs and benefits of various programs and approaches.

Until recently, financial performance was assessed using standard accounting practices, including profit (or loss), and return on assets or equity ratios. However, ratios derived from business activity of unsubsidized for-profit institutions are misleading for analyzing subsidized credit programs. In 1992, Yaron introduced two dimensions for performance assessment—institutional outreach and sustainability.

Although it is still unclear whether the poorest of the poor can be served without subsidy, recent analytical work based on Yaron's measures is helpful in making the subsidy more transparent thus promoting debate and encouraging management to reduce costs. Financial sustainability is achieved when the return on equity, net of any subsidy received, equals or exceeds the opportunity cost of funds. To eliminate subsidy dependence, an institution must have a lending rate that covers costs, a high rate of loan collection, and relatively low administrative costs. To achieve subsidy elimination requires an active deposit-mobilization strategy that will reduce dependence on subsidized funds from donors or governments.

Gurgand, Pederson and Yaron look at three measures, of which subsidy dependence is the most important. These are geographical outreach or coverage, penetration (number of clients served compared with potential coverage); and sustainability (or, conversely, subsidy dependence).

The Subsidy Dependence Index (SDI) is presented in the text box bellow. Although the SDI addresses only the credit component of financial intermediation, is a useful tool for quantifying the social costs entailed in operating a subsidized financial institution. In particular it does not require collecting detailed information on a RFI's [rural financial institution's] operational cost. The SDI is instrumental in:

- placing the total amount of subsidies received by an RFI in the context of its activity level, represented by interest earned on its loan portfolio (similar to calculations of effective protection, domestic resource cost or job creation cost);

- tracking a RFI's subsidy dependence over time; and
- comparing the subsidy dependence of RFIs providing similar services to a similar clientele.(Gurgand, Pederson and Yaron, 1994, p.73)

The Subsidy Dependence Index

Yaron's subsidy dependence index (SDI) measures the percentage increase required in the average lending rate to compensate a financial institution for the elimination of all subsidies while keeping its return on equity equal to the market reference rate. The index assumes that an increase in the lending rate is the only change made to compensate for the loss of subsidies.

The annual subsidy S received by the institution, and from it the SDI, are defined as:

$$S = A\,(m - c) + \{(E \times m) - P\} + K$$

$$SDI = S \div (LP \times i)$$

Where:

A = amount of concessional borrowed funds outstanding (annual average);
m = interest rate the institution would have to pay for borrowed funds if access to borrowed concessional funds were eliminated;
c = weighted average annual concessional rate of interest actually paid on A;
E = amount of equity (annual average);
P = reported annual profit before tax (adjusted, when necessary, for loan loss provisions, inflation, etc.);
K = total all other (annual) subsidies received by the institution (such as the salaries of seconded staff or coverage of operational costs by the state or an NGO).
LP = outstanding loan portfolio of the institution (annual average); and
i = weighted average interest rate earned on the institution's loan portfolio.

The SDI has been applied in the analysis of financial intermediaries—both comparative and over time — in South Africa by the Strauss Commission (1996), and has been demonstrated to be a useful analytical tool for informed policy debate. It can contribute to the analysis of financial intermediation to the poor by revealing the cost of maintaining a subsidized institution. The SDI permits comparisons of costs across alternative institutions, particularly those dealing with a similar clientele, and providing an analysis over time including fairly reliable future projections. It also provides a planning and evaluation indicator for management and policy makers. In cases where the need for the subsidy has been admitted (for instance, it may be necessary for Grameen replicators to reach the poorest of the poor) the cost of maintaining a sustainable institution is made explicit and transparent.

The SDI does not necessarily capture the effect of other subsidy elements, for instance the value of services provided by other organizations, nor does it capture the "learning by doing" aspects argued by supporters of cooperative development. Because of measurement problems with its components, differences in national accounting conventions, and lack of a reference price for cost of funds based on competitive interest rates in many countries (such as any country with administered interest rates, or the West and Central African CFA franc zones where interest rates are based on Paris rates rather than the local opportunity cost of capital), it is not appropriate for international comparisons. A more serious conceptual problem with this approach is that these measures apply only with difficulty to non-credit aspects of rural financial services and to many informal credit relations. In practice they cannot be calculated for many informal institutions. Creevey *et al* found four additional measures that help unify research findings among formal, semiformal, and informal institutions:

- Depth (number of transactions financed by each credit);
- Transaction costs as percentage of credit;
- Economic return to the savings transformed; and
- Risk of default.

This study found that institutions cannot be ranked by a single measure of "goodness." No institution investigated scored uniformly strongly on all measures and agencies differed in their strengths and weaknesses in providing a variety of financial services. Because of these differences, almost all poor people and all but the largest enterprises must deal with more than one type of institution to satisfy their financial needs efficiently. Many of these institutions become crossover points, nodes where large volumes of funds (according to the scale of informal institutions) flow between two systems to provide subsector finance.

Because of this diversity, it would be both difficult and inefficient to design a semiformal or formal institution to supplant or to imitate the informal sector in delivering financial services to the poor. On many measures the informal sector outperforms its more formal financial brethren, due to its penetration, sustainability, low transactions costs, and low risk—that provided resilience during the collapse of banking sectors under structural adjustment.

However, the informal sector fails tests of outreach and return to which an efficient system of financial intermediation in time and space must aspire. The provision of financial services meeting the needs of the poor requires both formal and informal financial intermediaries, with the semi-formal ones falling between according to their characteristics. The challenge of policy research and program innovation is to have the two financial sectors complement each other rather than remain distinct and inefficiently regulated.

LESSONS LEARNED

This survey of a variety of successful financial policies and programs concludes with highlights of several lessons learned from the attempts to provide financial services for the poor. The lessons, similarly to the text itself, are grouped according to policies and regulations, programs, and technical lessons. Citations for analysis contributing to this summary are found in the main text.

The policy and regulatory environment is still generally hostile to informal and semi-formal financial intermediation and to the transformation of funds from one sector to the other.

Banking laws designed to protect depositors are preventing the emergence of intermediate institutions such as village banks. However some countries are an exception. For example in Indonesia, regulations have been changed from defining the financial institution according to its juridical status to defining it according to the functions undertaken.

Interest rate ceilings or usury laws are in place in many countries. Reformers seek to have quantitative ceilings replaced by consumer information laws. However, they are generally losing the battle to populist politicians who believe quantitative limits protect the poor from exploitation. Most of the "success stories" have not attacked these laws head on. Instead, they have developed strategies to charge full cost-recovering interest rates in technical violation of the laws—often with the full knowledge and acquiescence of the regulatory authorities—while appearing to conform. This acquiescence is probably due to the widespread elimination of interest rate subsidies over the past decade and increased recognition of distortions they cause.

It is essential to develop **stronger linkages among sectors** (informal finance; semi-formal approaches including NGO and donor programs, cooperatives, credit unions and others; and the formal financial sector). Each sector has its own relative strengths as well as weaknesses, but none can provide by itself the full range of services required for sustainable services to the poor and efficient financial intermediation to transform idle funds to high-value uses. Thus any approach must be inclusive and pluralistic, rather than attempting to encompass all needs within a single organization or instrument. Most of the steps required are regulatory, to permit recognition of the services of each sector to the regulated formal sector, while others are programmatic.

At the **program level** there are several important lessons learned:

Savings mobilization. There is a demonstrated demand for voluntary deposit or savings services, fairly consistently found preferred to credit by a ratio of 7:1. This implies that average deposits are only one-seventh of average credits by the poor. Deposit mobilization is required for sustainability of the financial institution. There is less experience with transfer services, another important element both in business and in the coping strategies of the poor.

Although voluntary deposit mobilization is essential, the continued widespread use of coerced deposits, mostly as a condition for credit, makes it difficult to identify success stories that incorporate both deposit taking and credit at the level of the poor.

The poor are predominantly savers rather than borrowers. Savings mobilization is important for "getting prices right." This means offering the poor interest rates for savings or liquidity deposits that reflect the true value of these savings to society. These rates has been shown to be far greater than the rates assumed by those who posit that the poor do not save, and even those who assume credit is a service more important than deposit taking. Programs that must mobilize deposits from individuals are much less likely to establish lending rates that undermine legitimate local informal services by an implicit subsidy than programs receiving funding from government, donors, or NGOs.

NGOs may not be appropriate for deposit mobilization because they lack the governance and incentive structures for efficient, profitable market operation, the supervisory and regulatory rules to protect depositors, and linkages with other intermediaries to engage in financial intermediation.

Full financial services. Credit programs have received the most intensive and laudatory review, perhaps due to the long history of credit programs, their past failures and present successes, and donor interest in transferring their funds to the target population. If credit is not the primary need of the poor, credit programs provide only a partial solution. Newer approaches cited offer a different and often broader range of financial services than either credit-only programs or those with credit-plus-compulsory-savings. Credit-focused programs should evaluate their services to identify possibilities for voluntary deposit mobilization as a step to sustainability.

Transfer services convey funds from income earners in one part of the country (or world) to others at home. Living standards surveys have shown that transfer services are the second most important coping mechanism after saving for the rural poor. Transfers are restricted to the formal sector—including many now-moribund postal programs which provided such programs for the poor—and the most informal mechanisms such as confiding cash to returning co-migrants. In some countries the service is provided by bank branches. Often, informal couriers based are entrusted to carry large amounts of cash over large distances, and there is some experimentation with ATMs. In South Africa as in Southeast Asia, ATM technology may be reducing costs for the formal sector to deliver transfer services, but to date costs are too high for poverty programs and the evidence overall is promising but inconclusive. Transfers are an important component of coping strategies of the poor and should be supported with appropriate institutions.

Prices permitting full cost-recovery or profit have been charged for financial services to the poor, who willingly pay for such services if they are useful and sustainable. Prices may be charged as fixed fees rather than in the form of interest rates. This appears more acceptable in Islamic cultures and among the poor in other areas. If the poor do not subscribe to services provided by particular programs the provider should investigate whether informal intermediaries are providing similar services less expensively and, if so, whether the response should be emulating the informal financial sector or complementing its strengths with the service proposed.

Poor women face specific—even flagrant—social and financial constraints but have special strengths as managers of their own financial needs. Properly designed programs that target women's needs, particularly those of the ultra-poor women, address a special poverty need and have a greater chance of sustainability than programs that address the general population.

Elimination of interest rate subsidies is called for at the program level as well as at the policy level. Sustainability requires weaning from interest rate subsidies which distort incentives of both lenders and borrowers, reduce incentives for saving, and invite rent-seeking and inefficiency. However, there is not yet a clear case against **institutional subsidies** (subsidies to the overall operation of an institution without influencing individual lending decisions). While the largest and most dynamic financial programs are self-sustaining, there may be a tradeoff between addressing the needs of the poorest of the poor and being self-sustaining (with or without institutional subsidy).

Strong internal incentive structures are presently recognized to be created and modified by policies concerning prices (deposit and lending interest rates, transfers from branches to treasury, guaranty and reserve ratios, among others) and criteria for performance rewards. Explicit attention to these incentive structures is important in the design of a sustainable, efficient project.

Finally, a number of **technological lessons** have been learned. The merits of some technologies are still debated, and others not yet well understood.

Semi-formal and formal sectors emulate the informal sector by using its instruments and techniques. Borrowing these tools from the informal sector have successfully kept costs down in semi-formal programs thus allowing to provide possible extensions of formal finance into areas it cannot reach cost-effectively by supporting the informal sector. Additionally, informal financial techniques provide norms by which financial services must be judged for appropriateness, suppleness and speed.

New tools (including computerized management systems, ATMs, and smartcards) show promise to help keep costs low. They are not a substitute for appropriate financial technology but may improve outreach, greatly reduce cost, and increase the quality of services tailored to the poor.

Additional lessons learned:

The subsidy dependence index (SDI) is an effective tool for monitoring subsidy dependence by program implementers and by policy makers. Although it is limited to credit programs, it permits comparisons over time and between institutions in the same national financial market. SDI use permits transparency and informed policy debate concerning social policies.

It is premature to propose the abolition of forced savings given the strong arguments supporting forced savings within credit-oriented programs. A preferable strategy would be to offer the forced savings option through competing programs in similar villages, and then to evaluate the results using measures such as the SDI to open up the results to public debate. The same village should not be used since compulsory savings programs receive an implicit subsidy and will thus unfairly undersell market-based schemes offering similar services.

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